



## Secrets From Inside the Pizzeria

By Beverly Collins

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The author may be contacted at  
[bev@sitesandsounds.com](mailto:bev@sitesandsounds.com)

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## Secrets from Inside the Pizzeria

He was 17, a senior in high school out with friends at the local pizza parlor, talking and laughing. Then he took his first bite of pizza. All conversation stopped. His eyes rolled heavenward with each bite as he lost himself in a world of dough, sauce, cheese and pepperoni ecstasy. I watched him, entranced ... for I, too, had Pizzamore`.



**The All-American favorite - Pepperoni**

Only a few years before, singer Dean Martin crooned, "When the moon hits your eye like a big piece of pie, that's amore`." At least that's the words we heard. What was a Pizza Pie?

That all was to change in the 50's to 90's as pizza restaurants, take outs, and delivery sprang up in large and small towns across the country making pizza pie more common than apple pie.

In the late 1950's my father came home from work and announced, "Let's go see what 'Peeza' is." A pizza shop had opened in our small Midwest town and it was love at first bite. But expensive on our family's limited budget!

Quickly I discovered Appian Way and Chef Boyardee boxed pizza mixes on the grocery shelf, and Mom was happy to be relieved of cooking for an occasional night ... just add water to the yeast and dough ingredients, let it rise, spread it in a small pan, top with their canned sauce, and add cheese. It sounded easy, but I recall many a struggle trying to spread out the dough, which shrunk back like rubber bands, leaving thick and thin spots with holes that needed suturing. It took a while to learn what was wrong. There were no books or magazine recipes with how-to instructions. But I was determined to learn ....

I've followed my quest for the perfect pizzeria style pizza – which to me has the prized New York or Manhattan style crust – crisp outside, chewy inside, browned to perfection, a contrast of light and airy dough with zesty sauce and a blend of cheeses that melts in your mouth ... I've had a lot of luck along the way.

I've eaten hundreds of pizzas in Mom & Pop shops and chain restaurants in this country and around the world on business and pleasure travels. I was also fortunate to work in Pizza Research & Development for

one of the giants in the industry (Domino's Pizza – a great company), and to work with R&D people in their supplier companies like Con-Agra, Tri-Valley Growers, Mid-America Cheese, Stange, Hormel, and a host of international suppliers. Because of my natural curiosity and real interest, I was often invited by suppliers where no tourist had gone before. Thanks to all my mentors, I have been gifted with a unique understanding and appreciation of both the art and science of making pizza, both at home and in the pizza parlor.

The secrets of making true pizzeria quality pie have never before been published, and probably are understood by only a few even in the pizza industry. I have enjoyed sharing my pizza making knowledge in classes for men, women, and youth, who have been delighted to discover how easy, quick, and soul satisfying it is to make great pizza at home.

I hasten to add here that MY perfect pizza may not be YOUR perfect pizza. A sampling of pizzas in any city will prove there are many ideas of how a pizza should look and taste. My goal is that YOU, when you have finished reading this book and doing your own tasting and testing, will develop YOUR perfect pizza. At this moment that might seem a daunting task – especially if you are a beginner cook – but I assure you it is not only possible, but fun and exciting.

Definitely it is thrilling to create something that is just so downright good! So good that I've always felt Pizza should be its own food group!

Maybe you're wondering, "Why go to all this effort to make pizza? Just phone up my favorite pizza place and have it here in about 30 minutes."

Here's why: The best pizza comes from your own home oven. Yes! First it's incredibly hot and crisp when it is only a few feet from oven to table, and second you can put on all the cheese and toppings you want because tonight you're not responsible for the pizzeria's bottom line.

Do you know people who buy cookbooks and never cook a recipe from them? People who sit down and read a cookbook like other people read novels? You may be saying: "She knows me." I've always enjoyed the stories that go along with the cookbook, and I have added mine too, but they will come after cooking class, as I'm sure you're anxious to get to it!

Making Pizzeria quality pizza comes down to understanding 5 basics:

- The Equipment
- The Dough
- The Sauce
- The Cheese
- The Toppings

## Start With the Right Equipment



**You can spend a lot – or a little – getting equipment that does the job right**

There are a few pieces of equipment that easily turn your kitchen into a pizzeria:

**Pizza Stone**  
**Pizza Screen**  
**Pizza Paddle (Peel)**  
**Pizza Cutter**  
**Heavy Duty Mixer**

See “Sources” chapter in this book for locating hard to find equipment and ingredients.

### **Pizza Stone**

I consider the baking stone the most important piece of equipment for making quality pizza. Why? Only a super heated, hot dry stone will give the crisp exterior and chewy interior you expect from a real New York style pizza crust. If you depend on just the heat of the oven to do it, you will be disappointed.

It isn't difficult these days to find baking stones. I've found them at cooking stores, hardware stores that

carry cooking equipment, Pampered Chef, online cooking stores (even Amazon.com), King Arthur's Baking Catalog, and even some department stores.

There are thin stones and thick stones. Get a thick stone – nothing less than 1/2-inch. The thinner ones don't absorb and hold enough heat and are a waste of money.

Readers in other countries may have difficulty finding commercial baking stones but can find natural sandstone from a garden center, granite slabs, or pottery clay slabs (like kiln shelves). Try to avoid anything over 1 inch, as that takes a long time to heat and cool down. Readers are having excellent results with these alternatives.

Good baking stones are not cheap – in the \$30+ range. They are great for making artisan breads too; if you are a bread baker, get a square or rectangular one so it will accommodate your loaves. Check your oven size before buying, and leave one to two inches air circulation space on each side of the stone.

I store my baking stone in the oven because I don't want to risk moving and breaking it. A number of readers who have done this have written to say their baked goods come out better because the oven heat is more even, and I concur.

Getting started, you may want to avoid the major cost of a stone. Instead, go to your local home store or floor store and purchase 6-inch or 12-inch squares of unglazed red quarry tiles to line your oven shelf (leave 1-2 inches on each side for air circulation). Catch them on sale and you can do it for under \$5. If one breaks, buy another one. When I make pizza away from home,



I take inexpensive tiles rather than my expensive baking stone. These red tiles are often used in food production facilities because they are free of lead.

With all stones and tiles, season them by heating slowly in the oven, raising the temperature in 50-100 degree increments each hour to slowly drive out any residual moisture and prevent cracking into pieces. Never put oils or sprays on them. A few fissures or chips are not a problem.

Some people will line two oven racks with stone or tiles to simulate a brick oven and to get more browning on the top of the pizza. I find it is too much heat on the cheese and toppings in my oven. But try this if you are not getting enough top heat.

My favorite stone is gray Fibrament, which is the material used in commercial deck ovens. AWMCO makes a 3/4" thick stone for home use, which is an ideal thickness as it heats up and cools down in a reasonable amount of time. The baking advantage is the thickness of the stone, which doesn't cool off as much as the 1/2" thick stone when the pizza is placed on it. The cost is considerably more than the tan colored stone, however. If you want to know more, [click here](#) to visit their website.

Stones and tiles can get pretty grimy over time, but if you have a self-cleaning oven, just clean them when you self clean the oven – be sure they are completely dry before you heat them as moisture can cause them to crack. They come out looking like new. Never wash baking stones – just scrape off any excess; a metal blade dough scraper works well for this. If you don't have a self-cleaning oven, you can scrub your stone with a thick baking soda and water paste. Cleaning the

stone is for cosmetic reasons. Some prefer their stone dark and well seasoned.



Prized well seasoned 15-year old pizza stone (photo submitted by reader)

## Pizza Screen

If you've watched thin crust pizza being made in many pizza shops, you've seen the dough placed on an expanded wire screen that has the edges finished off with a metal band. The screen does three things: first, it makes a target for your dough so it comes out round; second, it supports the dough so it is easy to get in and out of the oven; and third, it lets the heat from the hot stone get to the crust.

Expanded wire pizza screens are inexpensive (\$3-\$6). They may not be in your local cooking store, but they can easily be found on line at sources like [A Best Kitchen](#), which has most everything else you could want

for making pizza at home or commercially. In larger cities you can purchase screens and other pizza equipment at most restaurant supply houses.

A number of readers have found splatter screens work well for a pizza screen. Be sure you can remove any plastic on it.

Pizza screens come in different sizes from about 4-inch to 24-inch screens. I'm partial to 16-inch size for a family of 4, and 12-inch for 2 or 3 persons, or 4 to 5-inch for individual pizzas. Measure your oven and pizza stone before buying your screens. It is okay if your pizza extends an inch over the sides of your rectangular baking stone, but you want to make sure the sauced area of the pizza will be in contact with the stone.

Before first use, spray the screen with non-stick food spray and bake at 350° for 15 minutes, then respray. This sanitizes the screen and begins the seasoning process. The more you use the screen, the more non-stick it will become. If your pizza sticks to the screen during baking, burn off the residue in the oven or soak it off in a sink of soapy water. Just be sure to reseason before using. The usual reasons your pizza might stick are that a piece of dough extended over the edge of the screen and wrapped to the underside when you placed the pizza in the oven, the dough is too thin to support the toppings and makes the crust soggy so it breaks when you try to remove the pizza, and trying to remove the pizza off the screen before it has naturally released during the baking process.

There are alternatives to expanded wire screens. Of course you don't need a screen at all and you'll see plenty of old-fashioned pizza stores making pizza directly on a metal paddle covered with flour or

cornmeal and sliding the pizza directly into the oven. If you decide to try this – practice when nobody is around – so you won't have to explain why pizza is burned onto the side and bottom of the oven! Unless you have a self-cleaning oven, you may not want to try this at all.

All kidding aside, there is a technique that works: work quickly, use enough flour or cornmeal on the paddle – not too much and not too little – so it neither sticks nor results in burned on flour; shake the pizza on the paddle a few times while assembling to make sure it's not stuck; then place the paddle with pizza on the stone and give a very small forward jerk so the pizza contacts the back of the stone, then swiftly pull the paddle out from under the pizza, keeping it fairly level so it doesn't make accordion pleats. It reminds me of the magician who sweeps the tablecloth out from under the plates and wine glasses.

A metal pizza disk or pan with perforated holes is easily found in department stores and online. These come in shiny and dark metal finishes. The shiny surface will bake a lighter crust than the dark finish. The finished crust is similar to one baked on a screen. I still prefer the crust baked on screens – but I hear from readers who tell me they prefer the crust baked on the perforated metal.

Another option is parchment paper, but keep the oven heat just under 450° - the burning point for paper. Most grocery stores carry parchment paper in the baking section.

I don't recommend pizza pans without holes for thin crust pizza because the pan makes a barrier between the heat of the stone and the dough, so it always leaves a disappointing somewhat soggy finish. I do use a

regular rectangular or round pan for making deep dish pizza, however, which bakes for a longer time, often using extra oil in the bottom of the pan to simulate a fried crust.

### **Pizza Paddle (Peel)**



**This pizza is transported on a Mario Batali design metal folding peel.**

The pizza paddle makes it easy to get the pizza from your work area to the oven, turn the pizza part way through baking for even browning, and remove it to the table. Lacking one, I've used a flat, no rim cookie sheet.

Pizza paddles are available at the same places you will find screens and baking stones. You can get rounded edge paddles or squared off ones, wood or metal. If you bake bread, you'll find the squared off one works well for both bread and pizza. You can buy them in different sizes (widths) too.



**Handmade pizza peel  
(Photo submitted by reader)**

The peel in the photo above was made by a reader in England who described its construction: "This peel was made from three-ply cut to shape including the handle. Two pieces of nine ply were cut to the shape of the



handle plus some overlap into the blade area. These were then glued and screwed into place. It was sanded smooth."

### **Pizza Cutter**

It is easier to cut a pizza with a 4-inch wheel than with the typical lightweight 2-inch grocery store tool. Give the cutter a "whack" at the crust edge to cut through to the cutting surface, and apply pressure as you cut across the pizza to the other side, leaving a clean cut. With the large cutter, you're less likely to dip your hand into the hot pizza. Make sure the cutter you select has a safety guard: this is a flange that extends over the blade; you rest your thumb on it and apply pressure as you cut. Without the safety guard feature, you will get a bad cut if your thumb slips.



**Note the large wheel pizza cutter with guard for safety and long handled fork for bubble popping**

### **Long Handled Bubble Popper**

Shown in the picture above, a long handle fork can be used to reach into the oven and pop bubbles during

baking. It is safer and easier than popping bubbles with an eating utensil.

### **Heavy Duty Mixer**

#### **Stand Mixer**

While you can make pizza dough with a bowl and wood spoon, it is much easier and faster by machine – especially with the type of strong gluten flour I recommend. I have owned Kitchen Aid mixers at home but have used a number of other brands of heavy duty mixers with dough hooks. They have all worked fine. I can make 2-3 doughs at a time in my stand mixer, or even several by mixing all the ingredients except the final flour, then dividing the batter into portions and finishing each by working in more flour.

#### **Food Processor**

The average size food processor will make quick work of one 16-inch dough. Just dissolve the yeast in a small portion of warm water, add the rest of the ingredients, and blend until the dough forms a ball on top of the blades. Some machines are very fast and will do this in less time than others – so the key is that the dough comes together in a ball. Add more flour if needed and reblend. Food processors generate heat in the dough, though, so after dissolving the yeast in warm water, make the rest of the water very cold. If you don't come out with a dough that is 75°F. or less, next time use refrigerated flour.

#### **Bread Machine?**

Many people cut corners by using their bread machine to mix and knead the dough and are satisfied with the time and labor savings. You can't make as firm a dough in the bread machine as you can in a heavy

duty mixer or food processor – but give it a try. You can always use the bread machine to do most of the work, then finish by hand, adding more flour to make a stiff dough. Some people prefer a more hydrated dough like you get from a bread machine.

### **The rest of the equipment**

Everything else you need you probably already have, like measuring spoons and cups. The only challenge left is: what to store the finished doughs in so they don't dry out and fit into your refrigerator space.

Some of the things I've used are bowl with a cover that won't pop off when gas builds up, plastic bags, and covered trays. I grease or spray the container – or the dough – lightly with non-stick food spray or olive oil so the dough doesn't stick and is easy to remove later.

Plastic bags work well when you have to fit the dough into small spaces in the refrigerator, but this storage method often results in misshapen doughs, which are harder to make round. Also, if the dough is not stiff enough, it will tend to pancake and lose gases in a bag. So I prefer to put doughs into containers with straight sides for better gas retention – it is also easier to tell when the doughs have risen to double in size.

## **Dough – It's in the Flour and Technique**

The New York thin crust pizza is made from a **lean** dough formulation – which means it has very little except water, yeast, salt, and flour. The dough formula looks similar to a French loaf formula.

### **Basic Lean Dough Formulation for 16-inch Pizza**

1/4 -1/2 teaspoon dry yeast

1 cup water

1 teaspoon sugar

1 teaspoon salt

1 teaspoon oil

Flour – about 3 to 3 1/2 cups to make a stiff dough

You may look at the recipe and think it doesn't look much different from a hundred others you've seen. Ah, but ... it is the flour and technique that lift it to the sublime!

Tom Monaghan, former owner of Domino's Pizza, always talked about Domino's secret sauce. I found that curious, until one day he slyly said to me, "Bev, the secret is not the sauce; it's the dough." Yes, anybody can duplicate a basic dough, and recipes are a dime a dozen.

A big change from bread making you will see in the thin crust pizza method describe in this book is that the dough is refrigerated at least 2 days before using.

Note: All recipes with complete instructions will be provided later.

## Flour Secrets



**Only one of these flours makes the coveted New York style pizza crust**

Another big secret to making outstanding pizza is the flour. But ... you can't run to the grocery store and grab it off the shelf; it isn't there – with a few rare exceptions. If you've tried and tried to make great pizza at home but been disappointed with the results, wait until you try the right flour!

The right flour may be the most difficult ingredient to find and will take some sleuthing on your part.

First, though, let me explain the different wheats and why this flour for pizza is different. There are hard wheats and soft wheats. Soft wheats are used for cake and pastry flours and are mixed with hard wheats to make all-purpose flours. Hard wheats are used to make high gluten flours which make excellent breads.

Then there are winter wheats, meaning they are grown over the winter in more hospitable climates; and there are spring wheats, which are sown in the spring in the more northerly climates, and grow to maturity in

the heat of the summer. The spring wheats have higher, stronger gluten (protein) content than their winter grown cousins.

To make New York style pizza, choose the hard spring wheat. This wheat will have protein ranging 14% and above as compared to bread flour around 12-13% and all purpose flours about 10-11% which are good for cakes and cookies. Spring wheat is grown mostly in Minnesota, the Dakotas, and Montana, and into Canada.

So where do you find this key ingredient?

An online source for U.S. customers for small quantities of flour is King Arthur Flour: [The Baker's Catalogue Online Store](http://TheBakersCatalogueOnlineStore.com). They are located in White River Junction, Vermont, telephone 1.800.827.6836. The item to order is their Sir Lancelot unbleached high-gluten flour for extra-chewy breads and rolls, item #3332. The descriptive statement reads: "Perfect for bagels, rye breads, pizza crust, and other 'robust' breads. Note: Dough made with this flour shouldn't be kneaded by hand, as gluten won't develop fully. Protein: 14.2%." It comes in 3 lb. bags only. They do serve commercial customers with larger bags, but not retail customers. Disregard the statement that it shouldn't be kneaded by hand – I've done it many times.

The Sir Lancelot flour should not be confused with King Arthur's Bread Flour, which is available in many grocery stores in the U.S. Its label reads "... is milled from full-flavored, hard red spring wheat, grown and harvested in America's northern Midwest ... King Arthur Unbleached Bread Flour is designed strictly for yeast breads, where its higher protein content – a full point higher than our all-purpose flour – gives bread and all

yeast-raised baked goods greater volume and better texture.”

Many readers have read the bread flour statement – or seen the King Arthur brand name and thought they were buying the right flour. While King Arthur’s bread flour is hard red spring wheat, and it is grown in northern climates, it has lower gluten content than Sir Lancelot. But it is one of the better choices if you are unable to find flour locally and prefer to not incur the expense of mail-order shipping.

An online source for U.S. customers to buy larger quantities is Honeyville Grain out of California. You can purchase XL-Hi protein flour (bleached) in 50 lb bags.

Note the **specification**, **uses**, and **competitive brand names** in the following description which will aid you to find your own less expensive sources locally. The information provided for the XL-Hi protein flour is:

**Description:** Honeyville's XL Premium High Gluten Flour is milled from sound, scientifically cleaned and specifically selected spring wheat, to produce premium quality high gluten-patent flour.

**Specification:**

**Analysis Specification:**

**Farinograph Specification:**

Ash:	.540%	+/- .02%	Peak:	8 min.	+/- 1 min.
Moisture:	14.00% Max		Stability:	25 min.	+/- 3 min.
Protein:	14.0% -14.5%	+/- .2%	MTI:	30	+/- 10 BU
Amylograph:	450 sec	+/- 50	Absorption:	64%	+/- 2%
Falling Num	210-230		Arrival:	2 min.	+/- 1 min.

**Uses:** Honeyville's ***XL Premium High-Gluten Flour*** is used in Kaiser rolls, bagels, hearth breads, French breads, Italian breads, hard rolls, specialty breads, pizza crust (thick and thin), pita breads, braided breads, croissants, and clear substitute, where a high quality patent flour product is required.

**Performance:** Premium quality high gluten spring wheat flour. Provides excellent fermentation tolerance, machine ability, good volume, and absorption. Works well in straight doughs, sponge doughs and frozen doughs.

**Ingredients:** Bleached wheat flour enriched (niacin, reduced iron, thiamin mononitrate, riboflavin, folic acid), malted barley flour, and ascorbic acid added as a dough conditioner.

**Kosher Approved – Pareve**

**Competitive Brands for Honeyville Bleached Flour:**

Hummer, Karol, Golden Tiger, King Kaiser, Bouncer, Blockbuster, All Trumps, Astro, Power.

**XL Premium Hi-Gluten Flour (Bleached)**

Honeyville also sells an un-bleached version: [Imperial Hi-Gluten Flour \(Un-bleached\)](#)

This flour is a mix of selected spring and winter wheat and the protein is a little lower than the bleached version (13.1% to 13.8%); it is a good alternative for those who prefer unbleached flour. **Competitive brand names are: Gibraltar, Remarkable, Magnifico, Eagle, Tigre de Oro, Kyrol, Sol Brillante.**

Each company that mills spring wheat flour has its own brand name. The specifications are practically identical from company to company. I have used most of the competitive brands listed and found they produced excellent results.



What sources can you uncover? I'll tell you some sources I've found and that may give you some ideas where to find product closer to home:

In my state, there are two foodservice distributors with walk-in stores about an hour trip away. These are popular with people who know about them because you can buy the brands and quality of foods that are often available only to restaurants. You may find them by looking for foodservice distributors or suppliers in the yellow pages of your phone directory or searching for foodservice companies on line in your state. For most readers, a foodservice distributor or a bakery ingredient supply house will be the place to find this flour.

While visiting my son in Michigan, I found a Gordon's Foodservice retail store that sells to regular folks like us. (Gordon's Foodservice provides food and supplies to restaurants and they have retail outlets in six states.) They did not have the flour I was looking for on the shelf in this store – you'll rarely find this flour on the shelf! – but I inquired at their customer service desk. We looked in their specification and product book, where I found one of the brand names mentioned in the Honeyville competitive brand names specification. They had it delivered from their warehouse to the store for me to pick up the next day. A side note: a lady from Michigan said she called the GFS store close to her and was told they did not have that kind of flour and no one had ever asked for it. I called the store and was able to get a customer service person to search "flour" in their computer and read me the brand names and there it was. The lady tried calling the store again and was helped by a different person who said, "Oh yes, we have that flour – I can see it sitting on the shelf from

here – pizza places come in and buy it all the time." You see why you have to be persistent!

A good point to note here is another way to find the right flour from a foodservice distributor is to ask what the pizza places are buying.

Some foodservice companies may not have a store, but may have a walk-up window, sometimes called a cash and carry window. I have purchased flour this way, but you need to call and check that you can do this, as some sell only to restaurants at their will-call window. Also, if they will sell to you, make sure they have the product on hand before you make a trip.

A 50 lb. bag of flour will last a l-o-n-g time, so it can be worth an hour's trip. You may also be able to get some of the other equipment you need like screens, peel, and ingredients in larger quantities like tomato sauce, cheese, and toppings if they have a retail store.

Other possibilities that have worked: a pizzeria that makes their own dough may be willing to sell you a bag of flour – one reader who got their flour from a pizzeria said he was told, "Everything's for sale here!"; a bakery that makes hard rolls or artisan breads may sell you some – even the bakery in your grocery store; a restaurant where you do frequent business or have friends may order a bag from their foodservice distributor for you. A few people have found the flour at Costco, Jewel, Smart & Final, and Kroger's.

If you don't find one of the familiar brand names mentioned above or live outside the U.S., use these tips to get the right flour:

1. Protein content about 14-16%.

2. Milled from spring wheat.
3. Description says used for items like bagels, pizza, hard rolls, artisan breads.
4. If ash content is listed in the specification, choose the one with the highest ash content. (The higher ash content means there is more Clear Flour in it and that is good.)

If you live in Canada, you might think it would be easy to find this high gluten flour, but not so. The good news for Canadian readers is that your bread flour is milled from spring wheat, so you may find you will have good results from your grocery store flour.

UK residents will find their flour at the Waitrose grocery chain – the wheat is Canadian grown.

Everywhere else it is going to be more difficult. In Europe and Asia, the pizza chain I worked for sourced flour from importers. If you find a pizza restaurant you like, try to buy flour from them. Try a bakery that makes hard rolls and artisan breads. Otherwise, purchase the strongest bread flour you can find and use the modifications I'll mention later.

If you are waiting to make pizza because you haven't found the right flour, go to the grocery store and start with bread flour – you may be surprised at how good your results are – and some readers tell me they prefer using the bread flour.

There is one idiosyncrasy with the high gluten spring wheat flour. When you make up the dough and let it age in the refrigerator, sometime about day 4 or 5 you may notice brownish spots on the surface of the dough. Don't panic and throw it out. This is a browning reaction

(of the bran) like you get when you cut an apple and expose it to air. It is harmless and does not affect the performance of the dough.

With this short course in flour, you can appreciate which kind of flour will give you the results you want. If you want crisp outside, chewy inside, you use the 14%+ spring wheat flour. If you want not quite so crisp and chewy, choose bread flour from the grocery store at about 12-13% protein. If you want an even softer, bread-like crust (like for a deep dish pizza), drop the protein level down to one of the all-purpose flours like Gold Medal or Pillsbury.

When you are looking for high protein spring wheat flour, don't get confused if you see a bag of Vital Wheat Gluten Flour – this is not high protein flour but almost pure gluten. Anytime you see a "flour" with far more than 16% gluten (protein), you can be sure this is vital wheat gluten.

If you have worked with Vital Wheat Gluten before, you may wonder if you could just add this product to all-purpose or bread flour to make a high protein flour. The answer is: not exactly. Most U.S. bread flour is made from winter wheat flour is a finer patent flour than the flour I've specified – meaning the mill uses streams of flour from the milling process that are taken from the center portion of the wheat kernel; these streams are white and fine textured. The flour I am suggesting you try has these streams of flour plus some of the tanner, rougher portions of the grain called First Clear. It is still white flour rather than whole wheat flour, but if you compared it to bread flour, you will notice it is slightly darker.

When you rub spring wheat flour between your fingers, you will notice the particles have a granular texture. Winter wheat flour does not have this granular texture – it is softer in texture and more compact. All purpose flour is even softer and more caked. So you see that if you add a teaspoon of gluten per cup of flour, you can increase the protein level but you still are missing some of the flour characteristics. Yet – if you are not able for some reason (you live in Australia?) to get spring wheat flour, you should use bread flour and try adding a small amount of vital wheat gluten, like a teaspoon per cup.

What about using whole wheat? As people put more whole grains and fiber into their diets, some want to add it to their pizza dough too. If you decide to experiment with this, I'd recommend you begin by substituting 1/4 cup of whole wheat flour for white flour and increase as your taste dictates. Also try white whole wheat flour and substitute honey for sugar. You may find tripling the honey will improve flavor. While a few may like 100% whole wheat pizza doughs, most settle for about 50% whole wheat and 50% white flour.

Whew! That's a lot to understand about flour. Fortunately, the rest of the dough ingredients are uncomplicated.

### Yeast

Any brand, any kind of yeast will work fine. The key here is to use yeast sparingly. The whole process is one of low and slow – low yeast amount and slow rising (refrigerated). The dough must rise v-e-r-y slowly to allow enzymes to work, flavor to develop, and gluten to mellow out. If you are using the kind of high protein flour specified earlier, you want the dough to rise only

once, as high gluten content dough does not like to be reworked – it is quite different in character from bread dough. If you are using lower protein flours like bread flour and all-purpose flour, the dough can be punched down and reshaped successfully.



**These ingredients make a NY style pizza dough**

Ideally, the dough should rise in the refrigerator for a **minimum of 2 days** before you use it. This is a minimum. I believe the dough is even better if it ages longer, providing it has not overproofed (which you will control by the amount of yeast you use). You want it to rise (proof) to double in size before you shape it into a pizza crust – if it is not doubled in the refrigerator, take it out of the refrigerator and let it rise to double in size before you make the pizza.

With a little experimentation, you will quickly determine how much yeast to use so that the dough

doesn't get more than doubled in size before you're ready to use it. In a cold refrigerator the dough will rise more slowly than in a warm refrigerator.

If the dough does start to overproof, gently deflate it with your fingertips, but DO NOT rework it. Most likely some helpful person will someday punch down and rework the dough for you. Don't despair; you can still use it. Let it rise to 3X in size to stretch the gluten (protein) strands and make them weaker. You will have an uneven crust, but it will still be tasty.

I suggest using a thermometer to check the water temperature before you dissolve the yeast; 110° is the temperature I use for dissolving yeast. This temperature of water causes the dehydrated cell walls to seal closed so the yeast nutrients don't leach out. Instant yeasts, unlike active dry yeasts, will dissolve at cooler water temperatures given time, and they can be mixed in with the flour and will still dissolve, providing there is sufficient water available.

The key thing to remember about yeast is **you use yeast to control shelf life**. Less yeast results in longer rising times, so longer shelf life. If you want to keep dough in the refrigerator for 7 days, you must use less yeast than if you are keeping it 2 days.

Once you discover how easy and tasty it is to make your own pizza, you may want to purchase yeast in economy size packages. Store unused quantities in the freezer in an airtight container and it will last long past the expiration date.

### **Sugar**

Use regular table sugar. Sugar provides food for the yeast and promotes browning and crispness. If

everything else about your dough is correct – mixing time, texture, rising, aging, etc. – and you aren't getting enough browning, increase sugar. Honey can be substituted for sugar in equal amount and is highly recommended for whole wheat doughs.

### **Salt**

Salt provides flavor and fermentation control. Any salt will work, but do try sea salt. I think it makes all foods taste better.

### **Oil**

I prefer the flavor and nutritional benefits of olive oil, but you can use other oils and even solid shortenings, melted. Oil tenderizes the gluten so the crust is easy to stretch out without tearing when you form it, and it makes the baked crust more tender and less chewy.

Knowing how the oil affects the dough texture, you can increase or decrease the amount of oil you use to make the crust meet your taste standards for tenderness and chewiness.

*If you are using a lower protein flour – meaning bread flour or all-purpose flour – and you want more chewiness to the crust, eliminate the oil completely.*

### **Water**

In general, hard waters make better doughs than soft waters. Living in the country, I have used hard water from a well and I've used our Reverse Osmosis drinking water with good results. I've also used city water that is lightly chlorinated with good results. Highly chlorinated water tends to be lethal to yeast; switch to bottled spring water. Soft waters, depending on how soft they are, can result in soft doughs. If your



water is soft (ask you water utility), you might want to compare a dough made with it to one made with a bottled spring water. And if your water has a bad taste, use bottled water.

### **What else can be added to the dough?**

Some people ask about adding more flavor to the dough, for example adding oregano, basil or rosemary. Personally I don't care for it as I like the contrast of the sauce and toppings with the plainness of the dough. On occasion, though, I add one of these:

Garlic Powder – about 1/4 teaspoon, or a finely minced fresh clove. The flavor will diminish as the dough ages.

Whey Powder – this makes the crust crisper. Try 1 tablespoon or more.

Black Pepper – 1/2 teaspoon.

Clear Flour – adds crunchiness, flavor, and elasticity. This flour has a slightly brownish color and comes from streams of flour that are closer to the outside of the wheat kernel. (Clear Flour is available from King Arthur baking catalog in U.S.) Start by substituting 1/4 cup Clear Flour for part of the high protein flour and add more if you like the result.

## **Create Your Own Secret Sauce**



**A terrific sauce can be put together using a wide choice of tomato products.**

Make your own secret sauce? You may be thinking “mission impossible.” But it's easier than you think.

To get you started in the right direction, I'll provide a working formula. Of course, if you like it just like it is, fine. But most people will discover they like more or less of certain spices, or a bit more pepper, or want to add their own “secret” ingredient like lemon juice. Easily done once you understand the options and how to work with them. I have readers tell me they halved everything in my basic sauce formula to get their favorite sauce, and others tell me they doubled most everything. You see how it's a matter of personal taste.

## **Tomatoes**

A good canned tomato product is the base for the sauce. If you plucked a can of every different label off the shelves across the country, you would have hundreds of choices. Add to that choices of flavored tomatoes, different cuts of tomatoes, and prepared sauces like Ragu.

So how do you pick a good canned tomato product? The simple answer is: taste test in side by side comparisons and pick the ones that have the best flavor – not tinny, not harsh, not bitter, good color and tomato flavor. You can make almost any tomato work. And that's a good thing, because you may develop your sauce based on a tomato product you like, and next time you go to the store, that brand has been replaced by another and you have to start over.

Most stores are going to carry at least one basic tomato product, and that is the one to purchase for your beginning sauce development. This will be a plain jane type of tomato. If the label says "Crushed Tomatoes," that's the one to pick up. Read the label. Ideally it should not have any additional ingredients other than citric acid and salt. Citric acid is used to lower the pH for safe canning.

As you try out different brands of tomatoes, you'll see color ranges from bright red to more orange colored. My own preference is for the brighter color because you get a fresher tomato taste. You can also make sauce from diced tomatoes, or add some diced tomatoes to crushed tomatoes for more texture – this is especially nice in deep dish pizzas.

Tomatoes will vary in taste from one growing area to another. My preference is for tomatoes grown in a Mediterranean type climate such as California as they are sweeter and the flavor works well with pizza sauce.

The other tomato product you will probably need is tomato paste. Blend the paste with the crushed tomatoes to make a thick sauce base, one that will mound up to about double on a spoon. To begin with, purchase the plain tomato paste. Later you may want to experiment with flavored paste, such as an Italian seasoned paste.

## **Salt**

If your tomatoes already contain salt, little additional salt may be needed in the sauce. You want enough salt to bring out the tomato flavor, but not so much it tastes salty. Which salt? All work, but I prefer the sea salt – the kind that has all the trace minerals left in.

## **Sugar**

Tomatoes have an acid bite. Too much acid gives a strong twang at the back of the mouth. A spoon of sugar will correct the sour. Some people prefer to use a pinch of soda to correct the sour.

## **Black Pepper**

Black pepper is felt at the front of the mouth, and it is pleasantly exciting. You can use either a fine grind of pepper or a coarse grind; the flavor from the fine grind will release quickly, while the coarse pepper may take a day. Blends of peppers are nice.

Most people like pepper in the sauce, but also try it without, using mostly basil for a change of pace.

Sometimes a very simple sauce with a minimum of spices is all that is needed.

### **Red Pepper**

Red pepper bites at the back of the mouth. It balances the black pepper sensation at the front of the mouth for a tingling mouthful! It doesn't take much. A pepper sauce such as Tabasco could be used in place of powdered cayenne.

### **Garlic Powder**

Most people associate Italian cooking with lots of garlic. But this is where it's easy to ruin a good pizza sauce. Garlic used in moderation heightens the gentle flavor of the tomatoes. So use just a touch of powdered or a clove of fresh minced garlic to start with. Roasted garlic is nice too.

### **Basil**

This is my favorite sauce ingredient. When you add it to the sauce, you'll see that it makes the sauce sweeter. When I'm adding sugar to the sauce and not quite sure whether I've added enough, I wait until I've added the basil, as that often corrects any lack of sweetness.

Rub the basil leaves between your fingers to release the flavor before adding to the sauce.

Fresh basil leaves are – naturally – wonderful. If you have access to them, roll the leaves up, cut them finely, then drag the knife through to mince them up.

### **Oregano**

For some, oregano is the preferred pizza spice. I always said I was not a fan of oregano and it was too

medicinal for my taste. Then I tried some Italian oregano and found it much more to my liking. Be careful, because too much oregano makes a bitter sauce.

Just as you do for the basil, rub the leaves between your fingers to release the flavor before adding to the sauce.

### **Fennel**

Ah, now here is the pizza sauce ingredient that lifts the ordinary sauce into the sublime, and most people won't even know what you've done. Fennel has a light licorice or anise flavor, and it comes whole, cracked, or powdered. I've used all happily, but prefer cracked or whole. Use sparingly!

### **Mint**

I've sometimes added a miniscule touch of mint to pizza and spaghetti sauces – not enough to be able to pick up the mint flavor. It adds a unique flavor – as long as there is not enough to recognize it.

### **Finding the right blend**

For me, a complex sauce needs balance – some sweet, some salt, a touch of bitter, some spice, some hot. No one ingredient dominates. You may prefer something quite different.

After the initial mixing, set the sauce aside for a day to let the spices bloom. Then taste again and make any last minute adjustments. Record your measurements so you have your secret sauce recipe ready for the next time.

On occasion I purchase prepared pizza sauce. Most pre-made pizza sauces are middle of the road flavor. Usually they need a bit more black pepper, basil and sometimes oregano to boost the flavor. The advantage is that they are often the right consistency without adding tomato paste. I've also used spaghetti sauces, modifying them as needed with paste to thicken plus additional spices.

Occasionally, I am asked about making an orange sauce. This one is really easy. Open a can of tomato soup and add oregano. You could add a little pepper too, if desired.

## **Make the Perfect Cheese Blend**



**Cheese comes in a variety of styles and brands**

Mozzarella has long been synonymous with pizza cheese. It is used alone or in combination with other cheeses to modify flavor and stringiness.

Cheeses most frequently used for pizza are:

- Mozzarella (part skim or whole milk)

- Muenster (brick cheese)

- Monterey Jack

- Provolone

- White Cheddar

- Asiago, Parmesan, Romano – in the cheese blend or as a topping.

When pizza was first introduced into mainstream American eating, it was the mark of a good pizza cheese to form long strings when you separated the slices. If pizza just isn't pizza for you unless the cheese strings, then stay with mozzarella or provolone or a blend of the two. The provolone will give an added buttery taste. Provolone can be plain or smoky flavor; a little smokiness goes a long way.



If you want the cheese to stay on the slice and not on your chin, then mix the mozzarella with 1/4 to 1/2 Muenster or Monterey Jack. You'll also increase the flavor. Monterey Jack blends are popular on the west coast.

For a lot of flavor, blend about 10% white cheddar with the mozzarella. This is especially popular in the Northeast.

As you work with cheeses, I'd encourage you to do side by side tasting. The flavor differences among brands may surprise you. I've tasted mozzarellas with almost no flavor to off flavors, and ones that are bursting with rich, clean, buttery overtones.

These days you can buy already shredded blends of cheeses for pizza at the grocery store.



**A cheese pizza is simple and delicious!**

Cheese can be a tricky ingredient. A young cheese will tend to hold its shape rather than melt down, and it will brown too much or even burn. A too old cheese will be so mellow it will disintegrate on top the pizza, making puddles of orange-colored oil, and it won't brown at all.

Unless you live next door to a cheese factory, you probably won't have the too young cheese problem. It is usually the too old cheese that overmelts in the oven that is the problem. If you've purchased such a cheese already grated, there isn't much you can do except blot the excess oil off the top of the pizza before you serve it, and next time add the cheese later in the baking so the heat doesn't have time to destroy it.

While I prefer a blend of about 2/3 Mozzarella to 1/3 brick cheese, I often find it difficult to find brick cheese that is young enough. So instead I usually use a Mozzarella/Monterey Jack blend or a Mozzarella/white cheddar blend or a Mozz/Jack/white cheddar blend. My grocery carries a very nice Vermont aged white cheddar that is excellent. For you California or Wisconsin folks, your state's white cheddar is excellent too.

If the too-aged cheese is still in the block, you can work around the problem. Larger pieces of cheese keep their shape better in high heat. So cut the cheese into larger pieces instead of fine grating it. A coarse grater attachment on a mixer will work fine. The food processor works best: Cut the cheese into 1 to 1½-inch chunks and process to pieces about pea size. Don't worry if the coverage over the sauce doesn't look too good. The cheese will melt and cover the sauce.

Typically, a pizzeria will not use more than 8 ounces cheese on a large pizza. That's enough for nice flavor

and appearance, and using more would increase the cost of the pizza. Customers who like cheese pay more for extra cheese. Making it at home, you can add all the cheese you want since you're not watching the bottom line! Twelve to 16 ounces of cheese blend on a 16-inch pizza makes a great tasting, hearty and filling pizza. But ... adjust the amount of cheese (and everything else) to the thickness of your crust; minimalist crusts must have minimal toppings.

When the pizza comes out of the oven, I like to grate some Asiago cheese over the top (my favorite). Parmesan and Romano are fine too. I don't use the pre-grated-in-can type, as that loses flavor in storage. The fresh hard cheese has many times more flavor, and a sprinkle is all it takes.

The cheese can be blended and ready at least a day before assembling the pizza.

## Top It Off



**A variety of pizza toppings: black and green olives, green and red peppers, pepperoni, onions, Italian sausage, ham and pineapple, bacon and mushrooms**

Who says you have to add anything on top the cheese? A well made New York style cheese pizza is so good it needs nothing more, except maybe a sprinkle of Asiago or Parmesan out of the oven.

But, then, it's hard to not be like a kid in a candy store when you've got so many choices of toppings!

Toppings can be prepared and refrigerated at least a day before assembling the pizza.

**These are the most usual toppings you'll find in pizzerias across the country in the U.S.:**

Pepperoni
Italian Sausage
Ham
Bacon
Salami
Canadian Bacon
Green Peppers
Onions
Mushrooms
Pineapple
Green Olives
Black Olives
Anchovies
Extra Cheese
Olive Oil

**Less common toppings are:**

Red Peppers
Yellow Peppers
Shrimp, seafood
Feta Cheese
Linguica
Tuna
Artichoke Pieces
Breakfast Sausage
Green Onions
Broccoli Florets
Chicken – smoked or barbequed
Ground Beef
Sauerkraut
Yellow Cheese
Tomato Slices
Spinach Leaves
Barbeque Sauce
Bratwurst
Sun Dried Tomatoes

You can probably think of others too, like Mexican pizza topped with lettuce, diced tomato, and tortilla chips (on a base of refried beans thinned with pizza sauce, salsa, or taco sauce); breakfast pizza with eggs; sweet pizza with fruit fillings, cream cheese, and streusel.

Try these suggestions for making toppings that look and taste good:

1. **Each topping item has an identity.** By this I mean slices of pepperoni rather than chopped chunks, ham slices cut or torn into pieces rather than diced, slices of olives rather than chopped, bacon squares rather than sprinkles.
2. **The items most vulnerable to heat go on top the cheese first.** Fresh mushrooms and pepperoni first because the hot oven heat shrinks and burns them. Toppings that need more cooking go on last, like green peppers and onions. Fresh white mozzarella goes under the sauce.
3. Partially cook **bacon**. I cut the bacon into 1-inch pieces, then stir fry in a skillet until willowy. Large quantities could be done in a 350° oven, stirring occasionally. Use smoked or pepper bacon rather than maple flavor.
4. Either partially pre-cook **sausage**, leaving it in identifiable bits rather than crumbles, **or** put small bits of sausage on raw as the last topping item.
5. To prepare **onions**, quarter lengthwise, then cut into 1/8-inch shreds lengthwise.
6. To prepare **peppers**, cut off the top and bottom, remove seeds and veins, cut into slivers 1/8-inch and 1 to 1 1/2-inches long.
7. To prepare fresh **mushrooms**, slice 3/16 to 1/4-inch thick, then into bite size pieces if mushrooms are large. Mushrooms cut too thin will dehydrate and burn. They can be sautéed in a flavored oil or bacon drippings.
8. **Pineapple** – use tidbits rather than chunks.
9. **Salami** – use whole slices or cut into quarters.
10. **Tomatoes** – use firm rather than dead ripe tomatoes, and cut about 3/16-inch thick. Or dice and marinate.



**You'll soon be able to buy this pizza with local toppings from a reader opening a pizza store and restaurant in Thailand**



### **These are some topping combinations we enjoy**

Combo: Pepperoni, mushrooms, onions, green peppers, Italian sausage (or sometimes breakfast sausage).

Supreme: Pepperoni, Italian sausage, bacon, red peppers, green olives.

Seafood: Shrimp, green peppers, green onion pieces, topped with sprinkle of ground up red pepper flakes out of the oven.

Sweet and meat: Canadian bacon or ham and pineapple.

Vegetarian: Mushrooms, onions, mixed color peppers, olives (green or black).

Meatza: Pepperoni, ham, bacon, breakfast sausage.

Margherita: Tomato slices drizzled with olive oil, fresh chopped basil, garlic, extra cheese. Pass the pepper flakes.

Tuna and artichoke.

Pastrami and sauerkraut with a sprinkle of caraway seeds.

### **Recipes and Techniques!**



**Bev and Deb have a pizza topped and ready to go into the oven.**

I call pizza the slowest fast food because the dough needs to be made 2-5 days in advance. Once the dough and toppings are ready, the pizza can be assembled in 2-5 minutes and baked in another 7-10 minutes. I've seen expert pizza makers look over the shoulder of the order taker and have the pizza going into the oven

before the customer finishes giving his name and address.

### Technique – it's all technique!

The reason most home pizza makers and even some commercial pizza makers don't succeed at making pizza dough is that they treat it like bread dough. Forget everything you learned about making bread – like a package of yeast, 2 or 3 risings, punching and reshaping, putting the dough in a warm location ... Get set to learn a whole new – and better way!



**Reader Victoria P. makes photos  
as good as her pizza!**

You'll notice the Pizza Dough Recipe has columns for Thin, Medium and Thicker crust. Consider your first pizza an experiment, and you may need to make your dough ball larger – or smaller – next time to suit your preference.

## Pizza Dough Recipe for Thin Crust Pizza

### Thin Crust Pizza Dough Recipe for one 16-inch Pizza, two 12-inch pizzas, or 5 singles

	Thin	Medium	Thicker
Water, warm 105-110°F.	1/2 cup	1/2 cup	1/2 cup
Yeast, dry	1/4 teaspoon	1/4-1/2 teaspoon	1/4-1/2 teaspoon
Sugar	3/4 teaspoon	1 teaspoon	1 1/4 teaspoons
Water, cold	1/4 cup	1/2 cup	3/4 cup
Salt	3/4 teaspoon	1 teaspoon	1 1/4 teaspoons
Olive Oil	3/4 teaspoon	1 teaspoon	1 1/4 teaspoons
Flour – approximate amount	2 to 2 1/3 cups	2 1/2 to 3 cups	3 to 3 1/2 cups
Approximate dough ball size	16 oz.	22 oz.	27 oz.

## **Technique**

1. Dissolve the yeast in warm water. You can do this in the measuring cup or the mixing container – just be sure the water is the correct temperature when the yeast goes in and that it dissolves completely.
2. Mix in sugar to dissolve.
3. Now add cold water. Cold water slows the fermentation process and can help keep the finished dough temperature on the cool side. If the finished dough temperature is above 75°F., use colder water next time or chill the flour.
4. Add the salt and olive oil and flour to make a batter, like a pancake batter. Beat well, about 1-2 minutes, until batter is smooth. (Remember, if you are using bread flour or all-purpose flour for a thin crust pizza, eliminate the oil entirely to make a crisper, chewier crust.)
5. If you are making the dough with a mixer with dough hook, do the initial mixing with the flat beater and add flour until most of the dough forms into a ball or hangs around the flat beater. Then switch to the dough hook.
6. Work in flour to make a stiff dough. Amount of flour needed to make a stiff dough can vary with the type of flour, humidity of the flour and room, and temperature of the water, so flour amount will vary from time to time.
7. Knead the dough to develop the proteins into a strong gluten structure. At first you'll notice the dough has no elasticity, but as you work with it,

it becomes stretchable and elastic. As a guideline, kneading by hand will take about 8-10 minutes; using a heavy duty mixer with dough hook about 3-4 minutes (be sure to turn the dough over half-way through mixing if using a C-shaped dough hook); in food processor 45-90 seconds, adding flour until correct firmness is reached. The dough should be firm, but not hard and lifeless like a rock.

8. How do you tell when the dough is just right? Do the **Table Test!** Knead the dough into a tightly closed ball –using only enough flour to keep it from sticking to the work surface – and pinch the dough ball closed so you don't have a gap in the center! Set it down on the table or counter. Over the next one-half to one minute, watch the dough: the dough should relax only slightly – much like if you were tense and relaxed your muscles, but didn't move. If it relaxes more than that, knead in a little more flour and try again. If the dough has too much flour in it – it will be difficult to pinch it closed into a tight ball and you'll see no relaxation. It will be difficult to stretch out when you make the pizza – you will stretch and stretch and it will spring back like a rubber band. If the dough is too slack, it will stretch out too easily – three or four slaps of the dough will stretch it to 16 inches.
9. Check the temperature of the dough. It shouldn't be over 75°F. Cooler is better. The protein in the dough will be damaged at higher temperatures, which will result in less rising in the oven and poor texture.

10. Lightly oil or spray the dough balls or container. The container needs to be air tight – zip loc bag, covered plastic container (not so tight that the lid will pop off when gas builds up), cake pan with fitted lid, bowl with shower cap food cover. Preferably use containers with straight sides to contain the gasses.

**11. The biggest technique secret of all: Low and slow.**

Let the dough balls rise in the cold refrigerator for 2 days or more – untouched until you are ready to use them. If the dough balls have not doubled in size when you are ready to use them, remove from the refrigerator and let them double in size at room temperature. Complete proofing to double in size is important for ability of the dough to stretch out during shaping, and for flavor, rising, and browning during baking. Please note that using the dough before it has aged at least 48 hours will result in a lower quality pizza.

What happens during this cool, slow rising period in the refrigerator? The yeast action creates flavorful byproducts during fermentation that turns an otherwise tasteless mass into a ball of flavor. The gluten mellows out, making the dough stretchable, and the cool temperature keeps the protein (gluten) in good condition so the dough will spring up under the load of toppings in the oven. Did you know that artisan bread bakers use time and temperature techniques for their breads? They vary the temperatures during the fermentation period to favor the growth of certain bacteria over others.

***Remember: Time and temperature management are key techniques.***

**Alternate mixing methods:** The mixing method described above is a conventional method of making yeast doughs. These are two other variations on making dough:

1. Sponge method: dissolve the yeast and sugar in the warm water. Add cold water and enough flour to make a thick batter. Beat well. Cover the bowl and let mixture ferment for 30 minutes to 3 hours. Then add the remaining ingredients – salt, olive oil and flour and proceed as usual. Doing a fermentation period with only yeast, sugar and a portion of the flour will develop more yeasty flavors in the dough. Some people like this and some don't.
2. Dry/Wet mix with instant yeast: Combine the salt, sugar, and instant yeast and about 40% of the flour in the mixing bowl. Combine the first measurement of water (about 110 degrees) with the oil. Pour over dry ingredients. Beat well, then add 2<sup>nd</sup> measurement of water (cold). Be sure the yeast dissolves completely. Then add additional flour to get the right consistency and proceed as usual. Some people prefer this rapid mix method to dissolving the yeast in water. This method will also work if you are mixing with only a spiral dough hook on a Kitchen Aid mixer.

**If the dough is slow to rise ...** The dough must rise to double the original size before it is ready for use. If it is rising too slowly, take it out of the refrigerator an hour to two ahead of baking and let it rise on your kitchen counter; once the dough temperature reaches

about 65°F., it will begin growing quickly. If you have to force the dough to rise very fast because of time constraints, warm the oven to about 100°F. and set the dough on the oven shelf (covered so it doesn't dry out) – or set on top of a rack placed over a sink of hot water (throw a towel over all). If you want the dough to rise faster next time, add a little more yeast when you prepare the dough.

### **If the dough rises too fast in the refrigerator ...**

Use your fingertips to gently deflate the dough, then let it rise again. Do not try to reshape it unless you have used a lower protein flour like bread flour or all-purpose flour. Next time, reduce the amount of yeast you add to the dough.

You will probably find you need a little more yeast in winter and a bit less in summer.

### **A variation**

Try mixing up the dough and don't knead it. Just let the rising action in the refrigerator provide the stretching action and gluten development. This makes a light, airy, almost pastry-like consistency to the crust, and is a nice – and labor saving – alternative.

**Troubleshooting suggestions:** You will most likely need to fine tune the recipe to your tastes. If you are not getting enough browning – even though the dough has been properly aged and proofed – increase the sugar until you do get browning; for example, it may take 3 teaspoons instead of 1 teaspoon. If you want a more tender, less chewy crust – increase the oil up to 3 teaspoons; oil makes the dough more tender – so it is your judgment call on what is tough rather than chewy – or on the reverse side too soft and bready. So if too

soft and bready, decrease the oil, going to none if using bread flour. You may want your dough with a saltier flavor, but increase that slowly.

For readers outside the U.S., you will have to make adjustments because wheat varieties, flour specifications, and milling procedures may be different – most likely will be different. Generally, the flour will be lower protein than 14%. Experiment with adding some of these ingredients: vital wheat gluten, whey powder, first clear flour.

### **To freeze or not to freeze?**

The answer is NO, don't freeze the dough. You will have very disappointing results. Lean doughs like this do not freeze well. It takes a lot of fat and sugar to protect the structural quality and a lean dough has very little fat and sugar. The resulting crust will be flat, wet, and limp because freezing denatures the protein.

It is much better to par-bake the pizza crusts at low temperatures (about 350 degrees) so they are cooked through but not browned. Prick them well with a fork before baking to minimize bubbles. Freeze the crusts in a heavy plastic bag, then pull one out, top and bake as usual. Or completely make the pizza and bake it until it is not quite done, then freeze; thaw when ready to use and finish baking to desired crust color.

### **Dough formula translation for metric**

A reader from England provided some British formula translations. He notes that the British teaspoon is slightly smaller than the U.S. teaspoon but that it becomes significant only at quantities of 1 tablespoon; a U.S. 1 tablespoon = 2 1/2 tsp UK.



1/2 cup water = 115 ml  
3/4 cup water = 172 ml  
3 cups flour = 330 grams

### Weigh or measure ingredients?

I don't take time to weigh ingredients, but I do measure carefully using level measurements. The flour is a floating measurement and always has to be adjusted for the right final consistency, so often I don't measure it at all – just scoop from the container. But if you feel more comfortable weighing, by all means do so. Some readers have told me they had better results once they started weighing the water and flour.

**Note** that this recipe may be doubled, tripled, or more. It would need some adjustment, especially for yeast, if you were making large quantities.



**Sausage, bacon, olive, and pepper pizza**

## Secret Sauce

### Secret Sauce Recipe

1 cup heated, thickened tomato base made from crushed tomatoes and tomato paste

Salt	1/4 – 3/4 teaspoon
Sugar	1/4 - 1/2 teaspoon
Black Pepper	1/2 – 1 teaspoon
Red Pepper	1/8 teaspoon
Garlic Powder	1/2 – 1 clove minced or 1/16 – 1/8 tsp. Powder
Basil Leaves	1/4 – 1/2 teaspoon
Oregano Leaves	1/8 – 1/4 teaspoon
Fennel (opt.)	1/16 – 1/8 teaspoon

### Technique

1. Make the tomato base by combining crushed tomatoes with enough tomato paste to make a thick sauce. A 28-ounce can of crushed tomatoes + a 6-ounce can of tomato paste will make about 4 cups of base. Add more tomato paste, if needed, to make a sauce thick enough to mound on a spoon to about double in size.
2. To begin developing your own secret sauce formula, remove 1 cup of base which you made by mixing the can of crushed tomatoes and

tomato paste. (You will have enough sauce to make 4 experiments.)

3. Heat the sauce so the seasonings and spices will release their flavor for tasting. Then add the seasonings in this order:
4. **Salt**. Taste the mixed tomatoes, then add 1/4 teaspoon salt. If the tomatoes already contained salt, this may be sufficient for the base. If not, add a little more, up to 3/4 teaspoon.
5. **Sugar**. Notice the acid bite. Start with 1/4 teaspoon sugar and taste again. You want to feel a little tang in the glands at the side of your throat, but it should not be sour. If it tastes sharp, add another 1/4 teaspoon until it is no longer sour, but also not too sweet tasting.
6. **Black Pepper**. Do you like foods not hot? Then 1/2 teaspoon may be enough. Or you might even prefer none! If you like foods spicy, go for 1 teaspoon – and next time you might decide to add even more.
7. **Red Pepper**. A dash of red pepper will help spread the heat sensation to back of mouth. Add 1/8 teaspoon if you'd like, or skip the red entirely.
8. **Garlic**. Use sparingly. Start with only 1/16 teaspoon powder or a finely minced garlic clove. If you like lots of garlic flavor, try sprinkling some fresh minced garlic over the top of the pizza.
9. **Basil**. Start with 1/4 teaspoon and taste. Doesn't that make a nice addition? Add more if you like. If using fresh, use 3X the dry amount.

10. **Oregano** – the medicinal, bitter flavor. Begin with 1/8 teaspoon and increase if you like the flavor. Using fresh? Add 2X the dry amount.
11. **Fennel** – the secret ingredient. But it can be overpowering. Start with 1/16 teaspoon of whole, cracked, or powder. I like more!
12. Now give the sauce a day's rest in the refrigerator for the spices to release their flavor. Heat gently before tasting. Try to pick out each flavor. Is any strong and overpowering - which is okay if you like one stronger. Do some seem weak? Does it need a touch more sweetness so it's not so acid tasting? Does it need a bit more pepper? Remember that sauce is only 1/3 of the basic pizza, so it can pack some flavor punch.

## Cheese Blend

If you haven't made up your cheese blend, you can prepare it ahead of time.

About now you'll be tasting your wonderful sauce and cheese blend, and dreaming about pizza. Get a loaf of French bread, slice and toast it. Slather on some of your secret sauce and top with cheese. Put it in the toaster oven until hot and melty, and treat yourself to a delicious snack.

Patience ...

## **Assemble the Pizza**

It's time to get your pre-seasoned stone in the oven and heating. For your first bake-off, set the stone on the lowest shelf position in the oven to get the most bottom heat. Operate your oven at 550°F. or at 500°F. (or 450°F. if using parchment paper). Give the stone about 30-45 minutes to preheat. If your oven heats quickly and your stone is 1/2-inch, you may need less time than that.

If you have the cheese already blended, the sauce bloomed, and toppings stored in a portioned container in the refrigerator, you are ready to make pizza on a moment's notice.

It will take 5-10 minutes to prepare the pizza for baking when you are first beginning and 2 or 3 minutes as your skills improve.

### **Form the Perfect Pizza Crust**

#### **Hand shape or rolling pin?**

Each gives a distinctively different texture of dough. Comparing hand shaped to rolling pin shaped, the pizzas are so different in taste and texture, you'd never know they started from identical dough balls – that's how important technique is!

The New York style pizza is shaped by hand. The risen dough will have great oven spring and be light and airy because it contains much of its original air. If you want a thinner, crisper crust, then use the rolling pin, which will compress the air pockets.

Here are the steps to form a pizza by hand:

1. Place dough on a well floured surface (rice flour gives a crispy finish). Some like a finely ground cornmeal – you can grind it finer in a blender.
2. Place your palm centered on the dough and press down. Notice how this leaves a raised area in the middle – which will not be worked. The center is left thicker so as you stretch the pizza - which causes the center to thin out – it doesn't get too thin. (If you get the center too thin or top it too heavily, it won't properly bake in the middle and you'll end up with a doughy, unbaked consistency.)
3. From the outer area of your palm print, start pressing outward with the flat part of your fingers, stretching lightly to make the dough thinner and larger. Work to about 1/2-inch from the edge – but don't flatten the edge. The last 1/2 to 3/4 inch should not be flattened at all so it will puff up and hold the sauce, cheese, and toppings.
4. Now thin out near the edge. Watch how this was done in the video. Pick up the edge of the dough furthest away from you, grabbing hold with thumbs on top and index fingers underneath PARALLEL to the edge. Using both hands, lift the dough a few inches off the table and stretch gently around the circumference of the pizza. The dough disk should have a ruffled edge when you are finished with this step.
5. The next step is slapping the dough: Pick up the dough and lay it across your right hand and arm, with your fingers just inside the edge. Now transfer the dough to the left hand and arm,

rotating it 1/4 turn and gently stretching it upward toward your elbow. Continue transferring from one arm to the other BUT ROTATING THE DOUGH 1/4 turn each time you transfer, so a different area is stretched. As you get the feel of it you will soon be doing this in a rhythmic slapping motion, moving your arms inward and outward – and side to side. The dough always remains in touch with some part of your skin. It is never flying loose somewhere between arms!



**First pizza toss – captured on film  
(Photo submitted by reader)**

6. Of course you'll want to show off sometime – after you are braver – by twirling the dough in the air. Here's how: Get under the dough with

your hands in a windup position with your right hand about 10 o'clock and your left hand about 4 o'clock; then sail your dough upward unwinding in a clockwise motion! I can almost guarantee your first throw will be a disaster landing on your head or someone else's who is laughing his head off! Don't worry too much about twirling. This is a show-off mode and tends to make the center of the pizza too thin. But you can compensate by leaving a bigger lump of dough in the center to start with.

7. Once the dough is stretched or twirled large enough, lay it down on your screen. It tends to shrink back some when you lay it down. Stretch a bit more if needed.

If you've stretched it a bit too much, pick up the pizza screen and drop it about 6 inches – that will cause the dough to shrink up an inch.

If your problem is just the opposite – you are struggling with dough that won't stretch out, stretch it as far as it's willing to go easily, cover and let it rest 3 or 4 minutes and try again. Dough that won't stretch (too elastic) is guilty of one or a combination of these: too much flour, not enough rising (to double in size), too much kneading. You can correct that next time.

And – if all else fails! Grab the rolling pin and finish it off.

### **Spread the Sauce**

It will take about a cup of sauce for a 16-inch pizza – less if you have a very thin crust. Smooth it out with a

metal or wooden spoon to 1/2 or 3/4 inch from the edge – evenly – except not so thick in the center.

### **Sprinkle the Cheese**

Sprinkle cheese evenly over sauce – except not so thick in the center.

### **Place the Toppings**

Put items on first that burn easily, like pepperoni and fresh mushrooms. Last put on items that need more cooking like raw vegetables and raw meat. Bring the topping items out to the rim; during baking they will tend to slide toward the center. Finish off by lifting the rim of the dough to shake any cheese or toppings off the rim and back onto the cheesy area so they don't burn. Do this by placing your finger under the rim and run your finger around the edge.

Here's a tip for getting an extra thin crust if you are forming it directly on the peel: Just before you put the pizza in the oven, lift the edges with your fingers and give it a little stretch.

### **Transfer to Oven**

Slide the pizza peel under the completed pizza and transfer to the hot stone.

Check the pizza in 3 or 4 minutes for large air bubbles. Underproofed doughs will make especially large bubbles because the gluten is not thinned out. Prick the bubbles with a long handled fork and push the toppings back over the bare spots. A few people like the burned and crispy bubbles, however.

Rotate the pizza about 2/3 way through the baking process to get even browning. When you rotate the pizza, notice if the top and bottom are browning evenly. Most often, the bottom will be less baked than the top. As the pizza gets closer to done, check if more browning is needed on the bottom. If so, lift the pizza off the screen (with the peel) and place it directly on the stone to finish browning and crisping. Depending on how much browning is needed this may be only 30 seconds at 550°F. or as long as 2 minutes. Check frequently so it doesn't burn on the bottom.

If the pizza is getting too brown on the bottom and not done enough on top, place the pizza on a higher rack in the oven so it gets top heat.

Depending on the thickness of your pizza and the temperature of the oven, baking will take about 7-10 minutes. Making more than one pizza? Allow a few minutes between for the stone to come back up to temperature.

Let the pizza set on the screen or a grate for about a minute before cutting – this lets some of the excess steam escape and helps keep the bottom crust crisp.

### **Ring the Dinner Bell!**

Cut the pizza into slices or squares with your heavy duty pizza cutter. As you are cutting, toppings may fall into the cutting crack. With the edge of the cutting tool, pull them back on top of the pizza so you have a nice presentation.

Grate some hard cheese over the top if desired or let your hungry feasters add their own. Pass the pizza peppers (try grinding in blender for smaller pieces and more even heat distribution). ENJOY!



## Troubleshooting an imperfect NY pizza

The first pizza is an experiment. Some will find it just what they were looking for. Most will need at least some tweaking. Some will know immediately what is needed to adjust the pizza to their tastes, some will review a related chapter in the book and figure it out, and some will want to write me for help:

[bev@sitesandsounds.com](mailto:bev@sitesandsounds.com)

Most problems will be with the crust. Look over these common problems and solutions.

### **Common Crust Problems**

1. What flour did you use? Was it one of the brands that is equivalent to the Honeyville flour specification in this book? ...e.g. if you used King Arthur brand, was it all-purpose, unbleached bread flour, whole wheat white flour, or Sir Lancelot? Sir Lancelot is the specified flour within the King Arthur brand.
2. How many minutes did you knead the dough and was it by hand or machine? ...no kneading will result in a different texture baked crust than 10 minutes of machine kneading. No kneading will result in a more pie crust type texture; more kneading will result in a chewier crust; too much chew is toughness. Only rarely does someone knead the dough so long that it is too elastic to stretch out – that is usually a problem of too much flour.
3. When you did the Table Test, how much physical relaxation movement did you observe during the one-half to one minute dough watch? ...it should

have only slight relaxation, but it should have that – if it doesn't relax slightly, there is too much flour and the only way to stretch it out is to make sure the dough is warm, let it over rise to 2 1/2 – 3 times in size, or use the rolling pin; resulting crust and bone will be hard and crisp – which might be okay if you like a crisper, crackery crust.

4. Is the crust too thick? You were looking for very thin? Use the recipe for thinner crust. If this is still too thick: use 3/4 of the dough ball for a large pizza and use the 1/4 left for a personal size pizza. Maybe one dough recipe will make two 14-inch pizzas for you.
5. If you refrigerated the dough in a bag or tray, did it rise both upward and outward (about equally is ideal). If too much flour, it will rise mostly upward and be difficult to stretch; if too little flour, it will flatten out and lose gasses and will slap out in 2 or 3 slaps (which is okay if you like the resulting fragile tenderness).
6. How much did the dough rise before you used it? ...that is, was it fully raised to double the original size before you made it into pizza? Doughs that have not doubled in size will have poor flavor and will rebound when you try to stretch them out – they'll also develop big air bubbles in the oven (which is okay if you want crispy bubbles).
7. Was it rising too fast – as in ready before 2 days, or did you proof it for 7 days and it still hadn't risen to double in size? ...control rising time and shelf life by using more – or less – yeast.

8. How aged was the dough before you used it? ...if you used it on day 2 and thought it lacking in flavor, try it at days 3, 4, and 5 as time will develop more flavor.
9. Did you have any problems hand forming the dough, as in difficult to stretch out, elastic-springs back? ... if yes, there are problems with too much flour, too little rising (not double), over kneading, or a combination.
10. Was the crust flat, rather than airy even though you proofed it to double? What was your finished dough temperature? ...if over 75° degrees, use colder water and/or chilled flour next time.
11. Did you get uneven browning? ...if too much bottom browning and too little top browning, raise the rack up a position so the top will get more heat. If there was too much top browning and not enough bottom browning, lower the stone.
12. Was there too little browning on the bottom and the stone is as low as it will go? ...if using a screen or disk, remove the pizza from the screen and place directly on stone – watch carefully as sometimes it takes only 30 seconds to brown it. Make certain the stone is completely preheated ... try preheating the stone longer next time. Also, be sure your stone is at least 1/2-inch thick at the edge. Sometimes the bottom element is not working correctly; the tip off is it takes a long time to heat the oven to temperature.
13. Did your pizza lose crispness quickly? ...extend the crispness a bit by letting air circulate around it for a minute after removing it from the oven – or try a reader's tip: place the pizza on a higher rack for air to circulate around it the last minute of baking. Note that doughs that have more water in proportion to flour will soften up quicker.
14. Was there not enough browning even though you baked at 500 or 550°? ...increase the sugar – sugar aids browning. Especially if you made the dough by sponge method (fermentation for a period of time with only water, flour, yeast and sugar), you may need to increase sugar to get browning. Double or triple the sugar and check your results. If the toppings are getting done or overcooked before the crust is done, definitely increase the sugar.
15. Did you have problems with the crust being too hard and it wasn't solved by baking less, or by decreasing the flour amount? ...try adding more sugar – double or triple the recipe amount. Sugar will reduce the baking time by making the crust brown quicker, it adds crispness to the exterior, and it helps retain moisture so the inside is tender.
16. Did the crust appear to be unbaked and doughy in the center, even though everything else was overbaked? ...this is a fault of a center too thin to support the weight of sauce, cheese, and toppings – the ones you put there, as well as those that flowed there during baking. Leave a bigger palm print in the center so there is a thicker center left after slapping. Sauce and cheese lighter at the center 3-4 inches.

17. When you are experimenting, I recommend you make 2 doughs – one a control, and one with the experiment – so you fully understand your results.

### **Common Sauce, Cheese and Flavor Problems**

1. Did the overall result seem bland, maybe tasteless? ...check the sauce first. If there is not enough heat (pepper) in the sauce, the pizza will be lacking in zing! Even though the sauce may have tasted fine when you made it, the sauce has to carry a mild dough and cheese. Of course, a table sprinkle of pepper can adjust for everyone if some like it hot and some like it mild. Or you might want more flavor from spices like basil and oregano, or fennel.
2. Did you want the cheese to brown, but it didn't? ...this is a cheese age problem. Young cheeses brown, older cheeses melt to white – and sometimes disintegrate to oily orange. You can't get an older cheese to brown, but you can minimize the breakdown by cutting the cheese in larger pieces or adding only part of it at the start, and topping with more cheese near the end of baking. If too greasy, blot with paper toweling before serving.
3. Pizza leftovers don't reheat well in a microwave; is there a better way? ...yes, put in a skillet with lid over very low heat and warm slowly about 10 minutes. It will taste nearly as good as fresh.

### **The 2-Day Wait Dilemma**

What do you do when you want a pizza right now? You don't want to make your pizza dough and wait 2 or

3 days! Several readers have written to me how they solved this problem for themselves. They make pizza dough frequently so there is always at least one pizza dough in their refrigerator that is somewhere between 3 and 7 days old.

For example, one reader whose family eats a lot of pizza makes 3 pizza doughs on Wednesday. He can make a good pizza on Saturday, Sunday, Monday, Tuesday and Wednesday. On Sunday he makes more pizza doughs that will be ready Wednesday, Thursday, Friday, Saturday, and Sunday. He adjusts yeast amount so the last dough will be fully proofed in the refrigerator at 7 days; if a dough is used before the last day, he will need to proof the dough outside the refrigerator to double in size.

Another reader works in New York City during the week and commutes to the country on the weekend. He makes pizza dough on Sunday for pizza he can fix when he gets home Friday night.

Sometime you may want to have pizza in 2 or 3 hours and you haven't been proactive. You won't achieve a NY style pizza, but this will satisfy the hungries:

#### **Quickie Pizza (14-16 inches)**

3 teaspoons yeast  
4 teaspoons sugar (adjust for browning)  
1 cup warm water  
1 ¼ teaspoons salt  
2 teaspoons melted butter  
Dash of garlic powder or 1 clove finely minced garlic  
Flour – either all-purpose flour or bread flour – don't use the high gluten pizza flour

Dissolve yeast and sugar in warm water. Add flour to make a batter like a pancake batter. Cover and let set 20-30 minutes – it should be bubbly. Add salt, butter, and remaining flour to make a firm dough. Knead well, about 6-8 minutes by machine, 10-12 minutes by hand – until gluten is well developed.

Cover and let rise until double in size in warm location. Turn out of bowl and form into pizza crust and proceed as usual.

## **Deep Dish Sicilian Style Pizza Formula**

This delicious pizza is baked in a pan. For the base I use a Focaccia dough recipe from a friend in Italy. It's been their family heirloom recipe for three generations. It can be made the same day.

### **Deep Dish Pizza Dough Formula**

<b>1/2-inch thick crust</b>	<b>1-inch thick crust</b>
1 cup milk	2 cups milk
1 teaspoon yeast	2 teaspoons yeast
1 teaspoon sugar	2 teaspoons sugar
1/4 cup olive oil	1/2 cup olive oil
2 1/2 cups all-purpose flour	5 cups all-purpose flour

#### **Method:**

1. Scald the milk by heating to simmering. Pour into mixing bowl and cool to 110°F.
2. Dissolve yeast in warm milk. Add sugar. Beat in 1 (or 2) cups of the flour. Cover bowl and let set for 30 minutes to 2 hours.
3. Add salt, olive oil, and the remaining flour. (Note: the olive oil flavor may be too strong for your liking, especially if it is a flavorful olive oil; you can substitute vegetable oil for half the olive oil.)
4. If using a mixer, mix with the paddle for 3-4 minutes, or stir about 6 minutes by hand with wooden spoon. The dough will be very soft and

sticky, more so than bread dough so is very sticky if you try to knead it instead.

5. Form into a ball on a well floured surface. If it is too soft to form, work in a bit more flour. Grease bowl well and turn dough to coat. Cover and let dough rise in warm spot until doubled in size, about 1 hour.
6. Place pizza stone in lowest position in oven. Heat oven to 500° F. while dough is rising.
7. Oil a 9x13-inch baking dish with 2-4 tablespoons olive oil. Use the larger quantity of oil if you want to “fry” the bottom. Gently spread dough to evenly cover bottom of pan. (Do not beat dough down before spreading in pan.) Tip: work with wet hands.
8. Spread 1½ cups of prepared pizza sauce over dough. I take 1 cup of my Secret Sauce and add 1/2 cup diced canned tomatoes for more texture and tomatoey taste (or even 1/2 cup of Secret Sauce and 1 cup of diced tomatoes), an extra teaspoon of basil and a little more sugar for a slightly sweeter taste. On occasion I caramelize a handful of sliced or diced onions and add to the sauce. I prefer a more tomatoey, chunky sauce with less seasoning for deep dish pizza.
9. If using sausage for topping, pre-brown sausage, leaving it in chunks, and put on top of sauce (under cheese) – or you can place on top of cheese if it is not precooked.
10. Add 3/4 to 1 lb. grated cheese over top. Add other toppings halfway through baking so they won't overcook.

11. Place pizza on preheated stone and turn oven down to 375° F. Bake about 20-25 minutes, until crust is browned and baked through. For an extra thick dough, bake at 350° F. about 35 minutes or until baked through.

Note: if you are making the extra thick crust, bake fully assembled at 350° F. until done, about 45 minutes. Another option is to prebake the crust at 350° F. for 15 minutes before adding the sauce and cheese.

Remove from oven and let set up about 10 minutes before cutting.

This is delicious as soft pizza bread too: Poke pieces of black olive, garlic, and fresh basil into the dough, rub with olive oil, and sprinkle with coarse salt before baking.

Some deep dish traditions have the tomato sauce over the top of the cheese.

Many readers have written they loved this deep dish pizza. Others did not like the crust texture and asked how they could alter it, in fact wondering if they could just use the thin crust recipe and make it thicker.

You can indeed use the thin crust recipe and just make it thicker. When I was with the pizza company, many customers would order double dough and we put two dough balls together. However ... for many people, that would be too much chewy dough. I've suggested to those readers to experiment making the thin crust recipe with bread flour, and increasing the amount of the other ingredients, especially the sugar and oil. Here is one response:



"As you suggested, we tried bread flour with more yeast, sugar and salt. After the normal process, slow and cold, I put the dough into a well oiled 14" deep dish pizza pan, and let it rise about 2 hours before cooking at 475°. The results were spectacular, a thick chewy crust with a "fried" bottom."

A quick pizza treat my family enjoys is fried Pizza Neapolitan sandwiches. Roll out small golf ball size pieces of dough to very thin, about 1/8-inch, fry in a small amount of hot olive oil, spread with a dollop of sauce and a toss of cheese, fold and eat. Delicious and can be prepared in minutes.

## Neapolitan Style Pizza Tips

I received this letter: "Hi Beverly: Let me start by saying I'm not blaming you. My first pizza was a bit of a disaster. I recently visited the Holy Shrine of Lombardi's Pizza in New York. I've also been to Grimaldi's. That is what I'm trying to achieve. I realize it's not going to happen without a very hot, coal fired oven, but I'm trying to get something like it.

"I purchased the stone that you recommended. I also bought a 16-inch pizza screen. My oven is capable of 550 degrees. To me, the Lombardi's pizza is all about the crust. Yes the sauce and topping are great, but it's the crust.

"Here's what I did on my first pizza. I made the recipe for a 16-inch pizza and used 1/4 tsp yeast. The dough doubled in size in about 24 hours in the fridge which seems too fast. I made your sauce which I was very pleased with. Here's where things started going wrong.

"I used quite a bit less dough than the recipe called for in an effort to get a thin crust, probably too thin. I used 1 cup sauce and 16 oz. fresh mozzarella. The pizza looked great in the oven. When I checked the bottom, it looked like it should be put directly on the stone for 1 minute.

"Everything was fine so far. When I tried to remove the pizza from the stone, the peel went right through it. I got most of it on the peel. When I took it out of the oven, I pretty much decorated my whole kitchen with the pizza. What I had not realized was that the top of the pizza was like a lake. The top splashed off as I moved it to the counter.

“Here's what I'm thinking some of my mistakes were: Way too much sauce and fresh mozzarella for the type of pizza I was trying to make. I know you discussed moisture content in your video. Fresh mozzarella obviously has a lot of moisture. On the plus side, the crust was the best I've ever made. I used the Baker's Catalog flour that you recommended. I used rice flour on the counter while I was forming the pizza prior to putting it on the screen. Can you help me? Bob”

I told Bob he had done well figuring out his mistakes: too much toppings for a minimalist pizza and too thin dough – not enough to support the toppings causing the dough to compress, making it gummy – and possibly the dough was too thin in the center to start with; just one of these dough problems would result in the disaster Bob experienced. The pizza peel hit thin, gummy dough rather than baked dough, and it all fell apart. Of course, too much yeast too – the dough needs at least two days to mellow out and for flavors to develop.

Fortunately for Bob I had a trip to NYC scheduled and made a stop at one of his favorite places to watch the pizza makers in action. The good news is I discovered how easy it is to make the kind of pizza he was wanting.

A Neapolitan New York pizza is thin crust and minimal toppings, most often only cheese for the topping. It is pretty simple to make, though you will not be able to get the char spots that commercial ovens give unless you modify the recipe from the legitimate recipe of only flour, water, yeast and salt. A work-around for this that can be done in some home ovens is to preheat the pizza stone, then turn on the broiler to

get it extra hot (place the stone so it is about 6 inches under the broiler). If this doesn't work, place the stone on the bottom of a gas oven or the first rack of an electric oven. Bake the pizza directly on the stone – skip the screen.

I've heard from readers who love this style pizza so much they have rewired an oven, bored the gas orifices on the oven so it runs hotter, or clipped off the closer for the self-oven clean cycle.

Since this isn't my favorite pizza, I'm not going to do that, but I can come pretty close with a little dough alteration. Some who have tried it say they like it better than the real thing!

If you want to make one of these pizzas, use the thin crust recipe with 3/4 cup water. Make a softer dough though, enough softer that you will get a little sagging of the dough during the Table Test. Store the dough in a container with sides so it won't flatten out and lose the gasses. Experiment with the amount of flour to add: the more water you use, the more fragile and crisp-tender the crust will be, though it will quickly deteriorate as it cools. This is one you must eat hot out of the oven.

At the store where I was watching them assemble pizzas, they had one person doing nothing but the initial shaping of the dough, working it out to about 8 inches for a 16 inch pizza, making sure the center didn't get worked, same as the technique I recommend. He made a pile of doughs to pass to the pizza maker ... this gave the dough a chance to rest a couple minutes so when the pizza maker got it, it stretched easily and quickly. This is a good technique at home too.

Here's how it was put together: The dough was slapped out and placed directly on a floured metal peel, no screen – so the crust would have full bottom heat for char.

The first item placed on the pizza was pre-sliced fresh mozzarella cut about 1/8 inch thick; if you're not familiar with fresh mozzarella, it is milky white. The slices were not overlapped and did not completely cover the bare crust – about 90%. It appeared to be about 6 oz. cheese on a 16-inch pizza. You cannot put this type of cheese on top because fresh cheese burns.

Then sauce was ladled thinly over the top – not too much and it didn't cover evenly ... about 1/2 cup, perhaps a little less. The sauce appeared to be a san marzano type tomato – which is sweeter than the ones I use from California – or it had some sugar added. It tasted to have some salt – so the end result was a strong tomato, only slight acidic flavor. (Some readers who have duplicated this pizza prefer a little spice in the sauce.)

A small handful of fresh grated parmesan was tossed over the top, followed by a sprinkle of dried oregano (use imported Italian if you can find it as it is not so strong), and dried basil. A few small fresh basil leaves were tucked into the surface.

It was then drizzled with a little good olive oil, and into a 600 degree oven.

I use a 550 degree oven and get char. Part of the secret of this is that there's not much to the pizza – it is minimal everything, so it cooks through quickly.



**Little Chef**  
(photo submitted by reader)

## **Sources**

Sources are also posted at the web page:

[www.pizzeriasecrets.com/supply](http://www.pizzeriasecrets.com/supply)

Please bookmark this URL in your browser. If you have a source for ingredients or supplies you think others might be interested in, please email me at

[bev@sitesandsounds.com](mailto:bev@sitesandsounds.com) and I will post them on the

Sources page at [www.pizzeriasecrets.com/supply](http://www.pizzeriasecrets.com/supply).

## **EQUIPMENT**

### **AbestKitchen.com**

Click on Pizza supplies in the left column:

**Pizza Stones** – round **#AM-PS1575** and rectangular **#AM-PS1416**

**Pizza Screens** –

7" **#AL-PS-07**

8" **#AL-PS-08**

9" **#AL-PS-09**

10" **#AL-PS-10**

12" **#AL-PS-12**

14" **#AL-PS-14**

16" **#AL-PS-16**

18" **#AL-PS-18**

**Pizza Peels** – both wood and metal pizza peels in a variety of sizes and designs

**Pizza Cutters** – heavy duty, safety guard on handle, replaceable blades available, variety of styles and wheel sizes. **#DR-P177A** – 4 inch wheel, high-carbon steel.

**Bakalon Deep Dish Pizza Pan** – 1½ inches deep, dark finish for crust browning, available in 6", 9", 12", and 14".

**Dough Scraper** - **#JR-3026** (wood handle) or **#JR-3056** (polypropylene handle)

**Shakers** – ideal for condiments such as red pepper, cheese, pizza spice (sold only by the dozen)

**Dough Retarding Box** – **#AL-DB3** 18"x26"x3", lid available **#AL-DRBC**

**Nemco Countertop Pizza Oven** – electric, with stone decks

### **AWMCO INC.**

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1.708-478-6032

**Fibrament Baking Stone**

### **King Arthur The Baker's Catalogue**

58 Billings Farm Road

White River Junction, Vermont 05001

1.800.827.6836

**Baking stones square and round, Baker's peel, parchment paper, pizza grill stone #5761**

### **Amazon.com**

Search Kitchen and Housewares

**all equipment**

### **Bolton & Hay Restaurant Supply**

**Pizza stones, pizza screens, pizza peels, mixers**

### **Pampered Chef**

**Baking stones** (search "stone")

### **Wal-Mart, Target, Upscale Department Stores**

Look for **Baking stones** (make sure they are 1/2-inch and not 3/8-inch) and **paddles, heavy duty mixers like Kitchen Aid**

## **INGREDIENTS**

### **King Arthur The Baker's Catalogue**

**Sir Lancelot high gluten flour #3332**

**Bulk Yeast – Red Star, SAF, Fleischmann's**

### **Honeyville (flour and yeast)**

**Item #16-510**

**Description: XL Hi-Gluten Flour (Bleached) -** spring wheat, bulk 50 lb. bag. (Competitive brands: Hummer, Kyrol, Golden Tiger, King Kaiser, Bouncer, Blockbuster, All Trumps, Astro, Power)  
Shipments are out of Rancho Cucamonga CA (near Los Angeles)

**Item #60-941**

**Fermipan Instant Yeast – 15.9 ounces**

**Foodservice Distributors with retail stores Bulk flour, crushed tomatoes, tomato paste, cheese, pepperoni, equipment**

**Gordon Foodservice** – locate retail stores of this foodservice distributor in Michigan, Ohio, Indiana, Illinois, Kentucky, New York, Florida

**Tomatoes:** Escalon Packers – 6 in 1 thick ground tomatoes – you can find them in some grocery stores. <http://www.escalon.net/products.asp>

**Cheese:** Mid-America mozzarella – you may find it at some grocery stores and membership clubs.

## **Supplier Sources –Tips from Readers:**

### **EQUIPMENT**

An online tip from a reader in Georgia: Fantes – <http://fantes.com/pizza.htm>. "I have found a very satisfactory source for the tools and the best pizza flour at this location. I've been using them the past few years."

**Arizona:** Stones, screens, peels, etc. – Standard Restaurant Equipment, 2922 E. McDowell Road

**Michigan:** Heavy Duty Pizza Screens, peels, and much more – Northern Pizza Equipment, 8020 Grant Street, Dexter, [www.NorthernPizzaEquipment.com](http://www.NorthernPizzaEquipment.com)

**UK:** Natural sandstone square 425 x 425 stone, 25 mm thickness – Stonemarket at local garden centre – if you visit [www.stonemarket.co.uk](http://www.stonemarket.co.uk) you can find a stockist near you. Natural stone is their "Trustone." There are other brands in other garden centres.

**UK:** Equipment sources – [www.pizzaequip.co.uk](http://www.pizzaequip.co.uk) in London, tel. 020 7263-3153 and [www.akroservices.co.uk](http://www.akroservices.co.uk) in Mildenhall, Suffolk, tel. 0870 190 4091. They sell primarily to the trade but will sell to the public. Also [www.barmans.co.uk](http://www.barmans.co.uk) for peels and other accessories.

### **FLOUR**

#### **From a reader who purchased flour at a pizzeria**

"I'd just like to let you know that I found a local pizza place called Big Ebe's pizza that was willing to sell me flour. I would see empty bags in the window. They were the Honeyville HI-XL or All Trumps. I went in and asked and the owner said, 'Everything is for



sale.' I walked out with a 50# bag of Battaglia high gluten flour for \$10.50."

**Arizona:** Food Source International, 2625 S. Roosevelt Street, Ste 101, Tempe (Southeast/central Phoenix)

**Illinois:** Jewel in the Chicago area.

**Iowa:** Martin Brothers, Cedar Falls and Mason City.

**Massachusetts:** Cirelli Foods Inc., Middleborough MA, 30 Commerce Blvd.; Phone: 800-242-0939.  
Brand: All Trumps. Cirelli Foods is a retail store similar to Costco but does not require membership.

**Michigan:** Costco

**New York:** Quality Food Service, Elmira NY, 902 Broadway. Brand: ADM Gigantic

**Ohio:** Seven Grains, Tallmadge. Call to place a special order 330-633-9999. (Sir Lancelot- King Arthur flour)

**Oregon:** Cash & Carry, Bend

**Utah:** Honeyville Distributor, Salt Lake City

**Virginia:** Costco, Fairfax

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**Canada:** Reply from editors@betterbaking in response to my question on where consumers in Canada can purchase high gluten flour: "You can order it from bakery supply companies - most cities have them. Check with the various milling companies (ADM, Multi Foods, Robin Hood, etc.) to see which flour names correspond to 14% spring wheat - each has a few flours within the vicinity. I use Robin Hood unbleached Keynote bread flour -used to use one called Great Plains

I think - (not Robin Hood) ...and ADM/Ogilvy has some."

### From readers in England

**Waitrose Supermarkets** - high gluten spring wheat flour, 15%.

ADM mills: Canadian Spring

Allinson Flour makes a 13.9% flour which is sold in the following supermarkets: Morrisons, Sainsbury's and Somerfields. Details are on their website:

[www.allinsonflour.co.uk](http://www.allinsonflour.co.uk) It is labeled Bakers Quality Very Strong White Bread Flour and is sold in 1.5 kilo bags.



Waitrose  
Sold as Flour from  
Canadian red spring  
wheat  
Protein 15%

## Readers Write

Note: You can also find “Readers Write: Questions and Answers” online at the [Readers Write](#) web page. Please bookmark this page in your browser and visit it for more questions and answers.

Thank you for your letters and questions. I am sharing some of the letters and responses for all to enjoy and learn from. I continue to learn from your experiences too. Letters may be edited.

Dear Bev: **I would like my cheese to be slightly on the brown side.** I’m baking my pie on the lower rack at 500°F. I’ve tried whole and part skim mozzarella, and mozzarella/Provolone mix. The crust turns out great but the cheese always comes out milky white. I’ve used Sorrento, Poly-O and Grande mozzarella. Wiseguy

Dear Wiseguy: You like your cheese just like I like mine! Your cheese brands are good - Sorrento is one of my long-time favorites. No browning can result from: 1) too much moisture in the cheese 2) too much age on the cheese 3) not enough top heat. If the cheese is held too warm, that can make it age faster. The reason I point this out is that I’ve noticed the same cheese brand can vary from store to store, which may indicate problems with the turnover time or the temperature of the holding case/warehousing.

So one suggestion is to try cheese from a different store. The second suggestion is to try moving the rack up higher to see if you can effect more browning that way – the heat is hotter higher in the oven; you will

have to place the pizza directly on the stone for the last portion of baking to get enough browning on the bottom. If these don’t work: Briefly place the pizza under the broiler – the problem with that though is if the cheese is really aged, it may not hold up to that direct heat. If you are grating your own cheese, use the coarse side of the grater – or better yet – if you have a food processor, cut the cheese into 1 – 1½ inch cubes and process to 1/4 inch chunks which will melt down slower. There is also a butane torch sold for cooking purposes and you could “torch” the cheese right after removing from the oven. Bev

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Hello Bev: I had two problems. **I did not get any oven spring at the edge** (it was not mishandled). Also the top crust was not a light brown but almost white. The bottom crust was a perfect brown. The dough did not double in size after 57 hours, maybe 50%. The temperature out of the Cuisinart was 80°F. It was baked on parchment paper on a stone at 450°F. until the cheese started to brown. Bob

Dear Bob: Let’s see what we can assess for possible causes –

The dough did not double in size after 57 hours.

Did you use the dough before it doubled in size or when it was 50% risen? If it is not raised to double, this could cause it to not brown because yeast turns carbohydrates to sugar, which promotes browning, and they haven’t had sufficient time to work.

Solution: 1) Remove the dough from the refrigerator and let it rise to double before using. 2) Increase the yeast in your next batch so it will proof faster in the

refrigerator. Also, did you put your dough in a bowl with straight sides, which will contain the gasses? If the dough is a little too slack and you put it in a tray or bag, it will flatten out and degas.

No oven spring at edge.

Now this sounds like a different kind of problem, because underproofed dough tends to get big bubbles when it bakes. So let's look at the 80°F. temperature out of the Cuisinart. This one is a biggie. An 80°F. dough is too hot – that will denature the gluten and cause a flatter dough, including a flat edge. Get around this by dissolving the yeast in a small portion of warm water, then using cold water for the remainder. You can even chill the flour if needed to keep the dough temperature down. Food Processors put a lot of heat into the dough, so skip the sponge method. Aim to keep your finished dough temperature under 75°F. The time to stop your processor is as soon as the dough forms a ball on top the blades.

The crust was brown on the bottom but not the top.

You are getting browning then, just not evenly. That will often happen when you are using parchment paper – because there is very good heat transfer from the stone to the crust. Try raising the rack one or two positions to get more of the top oven heat. If you see that the top is still not browning enough, move the pizza to a higher shelf the last couple of minutes either by placing it on the bare rack or on a baking sheet. Once you are getting even browning – then evaluate again – is it still too little browning? If so, increase the sugar to double or more Bev

Hello again: I made another pizza dough today. I skipped the fermentation, used ice water, and proceeded to end up with 80°F. dough again. I think I have identified the reason for the heated dough problem. My food processor is a new version with a "dough feature." The cook book that came with the unit states that it should be run for only 45 seconds for pizza dough. Bob

Hi Bob: Good detective work. Tell me more about your new processor so I can pass that information on. Bev

Hi Bev: It is Cuisinart Model DLC-2014N, 14-cup. Bob

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Hey Bev! **I went out to King Arthur's website yesterday looking for the flour you recommended and it doesn't appear to be there!** I even used the item # search and it says that it's not in their inventory at this time. Cathy

Hi Cathy: I've noticed too that the flour can be difficult to find sometimes, even when I've entered "Sir Lancelot" into the search box. You may have to resort to placing your order through their toll free number: 800-827-6836 (24 hours a day, 7 days a week) Bev

Hi Bev: Thanks. Must be a glitch in their system. I am chasing a flavor from a pizza that I grew up eating back in the late 50's, early 60's in Pennsylvania at Tommy's in Exeter. There was some ingredient that I haven't been able to figure out, but it was also in the pizza flavored Bugles snacks of the late 60's. Cathy

Hello Cathy: I remember Bugles but not pizza flavored ones. I'm wondering if a pizza seasoning might work – or in combination with something else. Like [Penzey's](#) Pizza Seasoning #23236 or Brady Street Cheese Sprinkle #20730, or Sandwich Sprinkle #27539 used for homemade croutons. Bev

Well Bev: I'm on the right track! I made pizza last night and it was VERY GOOD! I like the bread flour crust combined with the rice flour on the board. It was crisp and chewy...just perfect! I cooked the first one on parchment at 550°F. with the crust covering the parchment so it didn't burn. The second one, I discovered that the rice flour was enough to keep the crust from sticking to the peel. I'm VERY close to Tommy's ... for the cheese, I used smoked Provolone and mozzarella. Next time, I will use just mozz because I remember the cheese as being secondary to the sauce. The Provolone is probably a little too strong. I also need to cut back on the pepper and add more salt (perhaps via anchovies?) and fennel. I couldn't taste the fennel, and I think that might be the secret ingredient. Even so, it was very good and I am quite happy! But I'm always happy in the kitchen. Cathy

Hi Cathy: It sounds like the answer may have been simpler than it looked at first. Bev

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Hi Beverly: I made 6 pizzas yesterday. My wife thought I was crazy 'till she tasted one of them. They are wonderful!!! Beats paying our local pizza shop \$14 for a large pizza. You saved me a fortune. I got my flour from Quality Food Service, 902

Broadway, Elmira NY. The flour he has is ADM Gigantic. It cost me \$11.95 for a 50 lb. bag.

**I haven't found any pizza screens in my area yet so I'm using one of these splatter screens** that go over your frying pan. It is 14 inches round and has a nice handle for lifting out of the oven. There is a plastic insert on the handle but that just pops right out.

My stone is from Pampered Chef. My wife and I sold it for a few years and we have a bunch of them.

**I cheated on the sauce.** I went to Sam's Club and asked where they got their pizza sauce and they told me they don't sell it but can order it for me. It only cost \$19 for a case. It comes in 6 big plastic bags that hold 10 lb. sauce each. It will keep in your pantry in the bags for a year. After I open a bag I just freeze the rest 'till needed.

**I love White Pizzas.** You make a regular pizza crust and brush it with Olive Oil. Then you add fresh chopped garlic as much as you like. I use 2-3 tablespoons. I love garlic! Then add your cheese. That's it. They are wonderful just like that or you can use some of your pizza sauce on the side for dipping. Gordy

Dear Gordy: Thanks for some great ideas. Bev

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Beverly: **You do NOT preheat a Pampered Chef Stone.** It will cause it to crack. Linda

From Bev: Whoa! I and many other people (including Pampered Chef dealers) have been preheating Pampered Chef stones for years. I leave

mine in the oven all the time – it makes more even oven heat too. I went to the [Pampered Chef](#) web site to learn what PC recommends and found this information on their stoneware line:

- Stoneware duplicates the effects of brick-lined ovens used in professional bakeries and restaurants by evenly distributing heat, absorbing and circulating moisture. The results are crispier crusts, juicier roasts, and lighter, higher volume breads and cakes. The properties of natural Stoneware allow for heat retention keeping foods warm long after leaving the oven. There's no need to presoak or preheat it.
- To season your Stoneware, grease and/or flour your Stoneware according to package or recipe directions for the first several bakings. After these bakings, your Stoneware will begin to season and greasing may not be required.
- Avoid dropping or exposure to extreme temperature changes.

First off, NEVER grease and flour your baking stone – that will make burned on residue and odors you don't want. The stone is made by preheating to 2000 degrees so it certainly can withstand home oven heat. They are correct in what they say about dropping and exposure to extreme temperatures – it is better to have the stone in the oven when you begin heating it rather than placing the cold stone in a 550 degree oven. The only time I ever broke a stone was when I lent it to someone who leaned it upright on the edge and it fell over. Never soak your stone – even for cleaning. Now I do suppose that if you do not follow their instructions and your stone breaks, your guarantee will be void.

I have a piece of PC stoneware that I use for deep dish pizza – of course I don't preheat that. I believe the website is referring to this type of stoneware rather than their pizza stone.

I recently purchased an "Old Stone Oven" pizza stone from **A Best Kitchen** for a gift, so I took a close look at their use and care directions:

1. Wash stone with water before use (no detergent). Dry well.
2. Put stone in cold oven in center of middle rack; preheat to 500°F. for 15-20 min. It may be heated longer if you wish – the hotter the stone, the crispier the pizza.
3. First, liberally sprinkle a pizza paddle with cornmeal (a flat cookie sheet or large piece of cardboard may also be used.). Then put the rolled out pizza dough or formed bread dough on the paddle and assemble the pizza.
4. When stone is hot, sprinkle some cornmeal on it, and then slide the pizza off the paddle and onto the stone with a quick forward motion and a sharp backward jerk.
5. Bake pizza (or bread) per recipe until done and remove from oven with a paddle and serve. Let stone cool completely before washing.
6. The hot stone can be used as a server to keep your pizza piping hot. Be sure to use heavy mitts to remove stone and pizza from oven and place on a heat-proof trivet or mat to protect countertop.



7. Kitchen shears are recommended for cutting pizza when served on the stone. If you choose to cut with a pizza wheel cutter or sharp knife, first transfer pizza to a metal pan or cutting board.

***Never cut pizza on the stone, as it will mar the surface.***

8. The stone is quite durable, but it may break or chip if dropped. Handle it carefully.
9. CLEANING THE STONE: It is normal for the stone to accumulate stains from drippings even after washing. This will not alter the taste of your pizza or bread or the stone's baking performance. However, cooking residue may smoke and create odors. A scouring pad will remove most burned on bits. If accumulation is heavy, then a thorough sanding with a hard abrasive, like emery paper, may be necessary. An electric belt sander works well to clean the stone. Small stains can be cleaned by scrubbing with a toothbrush and a paste made of baking soda and water.
10. Do not bake cookies, turnovers or other items with a significant fat content directly on the stone. The stone will absorb the fat and cause smoking, odors, and stains.

I agree with almost everything they recommend except: since I have a self-cleaning oven, I find it easier to run it through the cleaning cycle to remove stains and burned on food; I scrape off any excess residue first. I don't care for cornmeal on the stone – if I'm baking several pizzas, the cornmeal will burn ... and it's a mess to clean up. If you do decide to serve the pizza

on the hot stone, get a dough scraper to clean off the food residue that will be likely to stick to it.

These instructions also reminded me of the many times I have cut pizza with kitchen shears. Bev

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Hi Bev: **I enjoyed watching your video and wanted to let you know how my first pizza turned out.** I have been a technician all my life working for an Air Conditioning Product Evaluation Laboratory and I am somewhat of a perfectionist who follows instructions very closely. My wife and I enjoyed making the pizza sauce as we followed your step-by-step instructions. The sauce turned out great and I grated some fresh mozzarella with some Vermont white cheddar and added some Asiago after the pizza came out of the oven. I could not find the particular flour you used but felt I found something that would work. After watching your video I realized the equipment, flour and the technique were the important part of creating a great pizza crust. I went to the health food section at Kroger's and purchased a spring wheat flour high in protein called Bob's Red Mill, Vital Wheat Gluten Flour. Your instructions said to use a high protein (14% or higher) flour from spring wheat.

After mixing up the ingredients I became very suspicious. I let it sit in the refrigerator for almost 4 days before bringing it out to rise because it didn't seem to change much. After letting it sit for a short time, I laid out the dough on some rice flour and pressed the palm of my hand in the center, but it would not stay down. I tried pressing out the dough with no luck and then started trying to stretch it. Boy, this stuff would cut off the circulation at the waist if it were

elastic in your pajamas! My wife said it would make a great Tempurpedic mattress. It reminded me of the old Green Acres program with Eddy Albers and Ava Gabor when she made pancakes and Eddy used what was left as a head gasket on his automobile engine!

Anyway, I had placed red quarry tiles in the oven and it had been preheating and I had no dough. I had ordered a pizza peel which came in the day before and it was delivered broken in half. I glued and clamped it. My teenagers were hungry and I drove over to Kroger's to buy some Boboli crust. Needless to say, my first pizza making experience fell very short of my expectations.

When I got back from Kroger's my boys were throwing my two dough balls outside like an 8-inch Frisbee. I hope my neighbors didn't see that. I had told them about learning how to make the best tasting homemade pizza. I am not sure if this stuff is safe to throw away for fear it will not decompose. It might work great blocking the holes in the bottom of my trash can. Anyway, I would assume this flour was not a good selection – or did I screw up the technique? Have you ever used this type of flour (75-80% protein?). Mic

Reply from Bev to Mic: Okay, I am laid out laughing at the description of your first pizza. My hat's off to your writing talent! It sounds like everything was going great with the sauce (congratulations! You've accomplished your own secret sauce.), but then came the gigantic rubber band. Your "flour" is actually vital wheat gluten – mostly protein, which can be added to flour to increase its elasticity. Look for flour that has 14-16% protein.

I am sure you will remember this first pizza long after you have become a pro. I have now added a warning about mistaking vital wheat gluten flour for high protein flour. Bev

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Bev: I have now made my dough. **I'm using zip lock bags to let my dough raise in the fridge. Do I zip them closed?** It wasn't clear to me. And second, **is it OK to stack them to rise or does that inhibit the process?** Rose

Hi Rose: Close the zip lock bags. The refrigerator would blow dry air over the dough and form a hard crust that won't soften up.

I stack the bags when I'm short on refrigerator space, but that squashes the dough some and does inhibit the rising a little, but mainly they get out-of-round. I prefer to not stack them but my refrigerator is often too full.

I heard from one reader who found stackable, interlocking containers at Wal-Mart, but I was unable to find them at mine. However, from Wal-Mart I did purchase some 6-cup rounded storage containers that I can stack on top of each other and these work well. Bev

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Hello Bev: I've got questions about **freezing dough balls**. I made a batch from another recipe I got before and froze it, and when I took it out and defrosted it, it fell apart into little pieces, wouldn't stretch either. I had one whole packet of yeast with all purpose flour ... what a mess. Is there a different way to make dough for freezing? Rich

Hello Rich: The answer is: Lean doughs like the New York style crust do not freeze well. Doughs that freeze well usually have a substantial amount of fat and sugar, and maybe milk - like dough for rolls and butter breads. Sicilian crust pizza dough is richer dough and will freeze better.

The problem in trying to freeze lean dough formulas is that the gluten in the flour becomes denatured, so it does not support the toppings. You end up with a kind of sodden mess. If you freeze the dough, you might get by with a light topping of sauce and cheese – or use it for breadsticks.

The dough you referred to that fell apart – that was probably a cracker crust – very low water to flour ratio – and maybe yours could have used a little more water to hold it together.

The best way to make the pizza dough last is to use very little yeast and let the dough rise very slowly in the refrigerator. I have used doughs 7 days after making by keeping the yeast amount small (some readers inform me they have gone 10 days) – like 1/4 teaspoon per dough ball and sometimes 1/8. (There are about 2 1/2 teaspoons yeast in a package.) Even so, the dough will keep growing – so when it gets to about double in size and you still plan to store it longer, use your finger tips to gently deflate the dough. For me this is about day 5 or 6. This will keep the gluten from overstretching, release the carbon dioxide waste product, and redistribute the food for the yeast to grow in a more hospitable environment. (If I am making several doughs to last for several days, I use less yeast than usual. On the other hand, if I want to use it soon, I'll increase the yeast to slightly more than 1/2

teaspoon per dough ball. My refrigerator is very cold.)  
Bev

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Dear Beverly K. Collins (Bev): **I found Hard Red Spring Wheat Berries from a local “Natural” Foods Store Co-op in Tempe.** I have a flour mill with four settings from coarse to super fine. Here is what they offer:

Berry = an un-milled, un-refined & raw grain (whole type)

Berry Name: Hard Red Spring Wheat

Source of berry = Great Falls, Montana

Quality = 100% certified organic

25 LB bag for \$11.29 + tax (I picked it up locally in Tempe, AZ @ Gentle Strength Co-Op Natural Foods Store)

Expiration Date of Berry: 06/29/2008 (one long shelf life!)

Company Name:

Montana Milling, Inc.

2123 Vaugh Road

Great Falls, MT 59404

Phone: 800-548-8554

My questions are:

1. Is this the right type spring wheat to use for New York style thin crust pizza dough, as per your pizza course?
2. Will this berry work once milled in my flour mill, or am I better off buying the flour pre-milled?
3. How fine do I want to mill the flour?

Cordially, Walter

Hello Walter: The wheat berry you described is the right one; however, grinding it yourself will give you whole wheat flour. To get the traditional pizza crust as in the pizzeria, you would need mostly the inner (endosperm) or white part of the wheat berry, which the miller achieves by using a bolting process to separate the different fractions of the berry. Unless you are looking for a whole wheat crust, I think you would not find this satisfactory. However, if you ARE wanting a whole wheat product, write me back and I could give you some tips on that! Bev

Hi Bev: Thank you for responding. Your course never mentioned endosperm, wheat berries, or the white part of the wheat. I prefer a whole wheat crust, nutritionally. Can I assume there will be some drawbacks (texture or taste) to the raw hard red spring wheat I bought and what might they be? How should I modify your dough recipe to potentially make it work? Let's assume a 100% whole wheat crust initially as my starting point.

I got my stone from [www.foodservicedirect.com](http://www.foodservicedirect.com). I love the stone. I tried others (from Bed Bath & Beyond, Macy's, Dillard's, and Wal-Mart) – all had 3/8 inch thickness – no good as you stated in your DVD and none of them hold the heat for long. Walter

Hi Walter: Whole wheat is too strong and dense for my taste when it is 100% whole wheat. You may find down the road you will want to dilute it some. Use the finest grind on your mill.

Instead of sugar, use honey as that compliments the flavor of whole wheat better than sugar. Use two to three times as much honey as sugar in the formula; you may find you would like even more after a trial run.

If the crust is not to your taste - that is, it is too "wheaty" – you can mix 50/50 with white flour – all-purpose flour for a softer crust, or bread flour for a chewier crust, or even the high gluten pizza flour. If you like the flavor of the 100% whole wheat crust, but the texture is too coarse, substitute 10-20% whole wheat pastry flour to soften it. Bev

Hi Bev: **(Subject of email: EXCELLENT PIZZA RESULTS BY ACCIDENT)** I just made the best pizza I have ever tasted. And I'm one picky SOB!

Whole Wheat Dough Recipe:

1 cup fresh-milled Hard Red Spring Wheat (from berry)  
2 cups King Arthur Unbleached All-purpose flour  
1 tsp. active dry yeast  
1 TBSP Honey

(Note: others who try this may want to add the traditional amount of salt – 1 to 1 1/2 teaspoons)

Mixed in a Kitchen-Aid mixer, low setting for about 15-20 minutes. Coat with olive oil, then let rise for 1 hour (no 2-5 day slow rise in fridge). Spread out and add toppings, then bake for 8 minutes at 500°F. Toppings were organic pizza sauce from a can (Muir Glen) 8 oz., cheese (1/3 mozzarella, 1/3 Monterey Jack, 1/3 Colby), and a sprinkle of organic pizza seasoning on top (from natural foods store).

I simply can't believe it. I don't think it can get any better than this, at least to my taste. It was more of a slightly chewy dough but with excellent flavor and awesome texture. It did not taste "wheaty" at all. It reminded me of a cornmeal dough but in a thinner crust. It beats Gino's East in Chicago, a world famous place. Walter

Hi Walter: I loved the title of your email. Sometimes the best results are serendipitous. What you did makes all the sense in the world. You reminded me that whole wheat is better baked fresh than aged so it needs more yeast – it can take on some sour notes if kept around too long. Your addition of all-purpose unbleached white flour made a nice balance. You may find you can get the results you want with less mix time. Bev

**If you want to experiment with whole wheat, here are some guidelines:**

1. Eliminate the refrigeration period – or refrigerate no more than a day; whole wheat can get off flavor if held too long as dough.
2. Substitute honey for sugar and use at least 2-3 times more honey as compared to sugar.
3. Combine whole wheat with part white flour. If you choose to not use any white flour but find the 100% whole wheat overpowering, try using 10-20% whole wheat pastry flour to make a softer dough.
4. Increase the yeast for faster action.

Bev

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Question for Bev: **How can I produce bubbles in the pizza crust? Like English muffins or ciabatta bread?** I tried what they call a poolish – it set for many hours overnight in the fridge and it looked like English muffins, but when I mixed in the rest of the flour I lost all the bubbles. Michael

Hi Michael: It looks like you have already figured out that the bubbles are related to the loose dough. Once

you firm it up to support the pizza toppings, you are going to lose that. One option is to keep the dough loose (soft) and constrain it in a pan – make a thicker dough rather than thin crust – and go light on the toppings so they don't weigh the dough down too much. If you use a pan that has holes in the bottom or a dark pan, that will help you get browning on the bottom. Also, once the dough is risen, work it lightly with your fingers as you shape it so you don't work out too much of the air – just break up the large bubbles. Bev

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Hey Bev, **What do you keep your flour in?** I got one of those 50 lb. bags – and now I'm stumped what to do after I open it. Mike

Hi Mike, I got a huge white plastic tub with lid from a restaurant supply place (restaurant supply places are in every big city). That will hold it if you empty the sack of flour into it. If I can't use it in about 6 months – or 3 months of summer – I repackage into large Ziploc bags or smaller plastic tubs and store in the freezer; ice cream tubs work. I've also stored flour in white lidded buckets that restaurants sometimes discard after they use the pickles or whatever came in them. Bev

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Hi Bev: **Could you please explain about bromate in flour?** You said it strengthens the dough but Vitamin C could be used instead. Please elaborate on that. I really don't understand what you mean by strengthen the dough. The Honeyville brand is great without bromate; I don't see it as less in strength, flavor or texture? What is the bromate doing in the Pillsbury flour? Michael



Hi Michael: Bromate will get you more rising power – which is helpful when you have a lot of toppings on the pizza. Bromate alters the gluten to make it stronger. I have never picked up a taste from it, but some people claim they do, and some others don't want it because it's a chemical additive (potassium bromate – classified as an oxidizing agent – it is normally completely used up in the baking process). Ascorbic acid does the same thing. Use about 12 mg. ascorbic acid for each cup of untreated flour. You can do this by crushing a 100 mg. tablet of Vit. C and mix with 8 teaspoons flour: use 1 teaspoon of this mixture per cup of flour. Or crush a 500 mg. tablet with 10 teaspoons flour: use 1/4 teaspoon per cup of flour. You may be able to find capsules of Vitamin C that already are powder. I have been using this trick for years when working with untreated flours.

Doughs made with untreated flours tend to be softer and more sticky. Sometimes both bromate and ascorbic acid are added to flours. The Honeyville flour which you like has ascorbic acid.

P.S. I am glad to hear you like the Mid-America cheese. It is a very clean, buttery tasting cheese. My favorite. Bev

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Hi Bev: **Is dough size just a matter of personal taste** and experimentation or have you experimented with sizes and found out what is too much for different pan sizes and types?

Rise time. **What is your take on rise time? I am experiencing loss of flavor when I allow it to rise too much.**

**A question about Clear Flour.** Where do you find it? What would happen if I used it alone as a dough for pizza? Michael

Hi Michael: Dough size is a matter of personal taste. When my grandson Patrick comes, I make a very thin crust for him (about half a dough ball from the dough recipe) and half the cheese I usually use because that's how he likes it. My personal taste is a thicker New York Style dough (starting with 1 1/4 cups water) than probably most people like, medium amount of sauce, and lots of cheese – somewhere between 12 and 16 ounces of cheese on a 16-inch pizza. If these doughs get much thicker than 1/2 inch, it gets to be too much chewy dough for me and I'd switch to bread flour instead. If I want really thick dough – as in a deep dish or Sicilian pizza – then I prefer to use a deep dish type crust recipe with lower protein flour – either all purpose or bread flour.

Rise time: The loss of flavor you are experiencing could be due to rising more than double in size – the enzymes break down the starches and continue to feed and grow in an increasingly carbon dioxide atmosphere. (Did you catch the alcohol aroma?) Texture changes and flavor change become increasingly pronounced when doughs continue rising past double. Check this out with a side-by-side comparison from the same dough batch, letting one over rise to the amount you had previously, and the other one at just double in size.

Clear Flour is hard to find. You might find it from a local distributor, a natural foods store, or a bakery supply place. But the only place I have ever found it retail is King Arthur's Baking Catalog. You had asked earlier about adding it to bread flour to get more flavor. For a

starting point, try about a 15% replacement of bread flour with Clear Flour.

So what would happen if you used clear flour alone? You've really got to try that for yourself! When I was at General Mills, I asked the question, and the R&D person did not know – he had been there 30 years and never been asked that! So we had the fun of doing it together. You should have seen the dough! It looked more like a whole wheat dough. When we tried to stretch it out, it bounced right back. We'd stretch, let it rest, stretch, let it rest for about 15 minutes – amid laughter – and this dough had been really well proofed. That stuff was like new elastic! Finally we got it stretched out, topped, and into the oven. It had oven spring like you wouldn't believe! It was chewy, crunchy, crispy – I liked it. But I've never done it again. Bev

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Hi Bev: One more question. Yeast. I have been using Instant Active Dry Yeast to good effect. I just ordered SAF Instant Yeast from KA. **What is the difference, and what do you advise concerning the different types of yeast?** Michael

Hi Michael: There is Active Dry Yeast (ADY) and Instant Dry Yeast (IDY). The Active Dry Yeast must be dissolved in warm water before adding the other ingredients. The Instant Dry Yeast is very fine granules and will dissolve when you mix it with flour and add water, providing there is enough available water. It is suggested that you can use 25% less yeast when you use IDY as compared to ADY.

Yeast companies advertise that you can make bread faster with their instant yeast. Unless I have some

reason to be in a hurry, I prefer making bread slower – especially if it's a lean formula dough like pizza or French bread – it takes time for yeast enzymes to work and flavor byproducts to develop – because there's not much ingredient other than flour and water. A lot of yeast or very active yeast will rush the dough along – and it is fairly flavorless when you do that. So whether it's instant, fast rising, or regular dried – I just adjust the amount of yeast so it takes about 3 to 5 days for the dough to fully proof (grow to double in size) in the refrigerator. (Some will want to adjust yeast so the dough lasts longer than 5 days.) If I want to use the dough before it is fully proofed, I remove it from the refrigerator and let it grow to double in size before I use it.

I buy yeast in pound packages and freeze what I don't use (air tight glass jar). Since there is so little yeast in the pizza dough, I remove the amount I need from the freezer and by the time I'm ready to dissolve it, it has warmed to room temperature.

There is disagreement among the experts on whether you should freeze dry yeast. The reasons against freezing are that the yeast cell structure could be damaged by temperature fluctuations from the self-defrosting cycle and opening of the freezer door. So they may recommend putting your yeast in the back of the refrigerator, where it will keep 4 months or so. But here's my experience: My husband brought home four 1 lb. packages of IDY that had just expired. After telling him I couldn't use that much yeast the rest of my life if it never expired, I gratefully put it in the freezer (he bought it for a buck!). Three years later we were on the last package. (He had to learn to make bread ☺) So I freeze yeast.

I have used every brand and type of yeast and found they all work fine. In side-by-side comparisons you may be able to tell a minimal flavor difference in the crust – but once you put toppings on, I doubt you can. I know you'll be happy with the SAF – it has a clean taste and dissolves easily.

When making pizza I usually dissolve the yeast in warm water first because it heals the yeast cell walls, and my second addition of water is cold so I can slow the yeast action and keep the finished dough on the cool side (max. 75 degrees F.) Bev

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**Subject: Crust Problem...HELP! My crust is coming out TOUGH.** The inside is light and airy, but the bottom of the crust and the bone are tough. My oven will only heat to 500 degrees. What am I doing wrong? John  
P.S. No matter where I've lived, every pizzeria has an excuse for a bad crust. Now I'm living in Florida and, of course, their excuse is the water. John

Hello John: It is true that the slower you bake, the more the crust can cook and toughen on the outside, but I don't think that is what is happening at 500 degrees. Check these things:

1. Which side of the dough ball faces the pizza screen? If the top side gets some air to it and develops a bit of "skin," and then you make this the bottom, this can make the crust leathery. Put the soft side down if you are not already doing this.
2. You don't want the dough to be sticky and possibly stick to the screen, but having said that, make a pizza with as little flour as possible – just

to make sure that excess flour is not contributing to the toughness of the bottom.

3. Make sure the stone is heated to oven temperature so the crust bakes quickly. Give it 40 minutes preheat on your next bake just to be absolutely certain. Usually 10 extra minutes after the oven comes to heat is enough for a 1/2" thick stone.
  4. Your stone is 1/2-inch thick – not 3/8-inch?
  5. How brown is the crust? If it is fairly dark, can you back off to a lighter golden brown and still like the crust? At 500 degrees, a shorter bake time could prevent extra drying out on the outside.
  6. Is the crust equally brown on top and bottom? If it is browner on the bottom than on the top of the bone, raise the rack a position.
  7. Check this out too: Back off on the amount of flour and make a softer dough. A dough too heavy with flour will be dry and tough, not chewy and airy. This doesn't quite sound like your solution though since you said the inside is light and airy.
  8. One additional thought: if you want the crust fairly dark, but it is taking too much baking time to get the color, try increasing the sugar – double or triple it. The sugar will promote browning and help hold moisture. Bev
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**Here are some experiments worth performing if you are not satisfied with the texture of your crust:**

1. Rising: The more the dough rises, the more fragile and crisp it becomes. Stay with the same formula and procedure this first time around. Make 2 doughs to compare. Let the first dough rise to 2 ½ times its original size before making the pizza; make up the pizza 2 days later (48 hours) from the time you first mixed it – part of the rising will be in the refrigerator and part on the countertop. Let the second dough rise in the refrigerator to 2 1/2 times in size before making the pizza, which will probably be about 5 days. The second dough should be more fragile and crisp than the first because of time related enzyme activity.
2. Mixing: More mixing makes a stronger gluten structure. For this experiment, make 2 doughs to compare, using same formula and procedure. Mix the dough to the right consistency, but do not knead the first one. Do knead the second one your usual amount of time. Bake both doughs on the same day between days 3 and 5.
3. Oil and sugar increase tenderness. If #1 or #2 above did not produce the texture you wanted, pick the crust you liked best from #1 or #2 and the time frame you liked best. Then double the oil in the formula. Was that better?  
  
Next time pick the one above you liked for tenderness and double the sugar in the formula. Did that increase crispness and tenderness? Would you like to try adding more?
4. A dough with less flour (more water) is more fragile, tender and crisp. A dough with more flour is chewier, harder, more substantial, and supports the toppings better. Make 2 doughs. To one of the doughs add 1/4

cup more flour than usual and to the other subtract 1/4 flour. Bake both doughs on the same day.

Bev

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Hi Bev, **What do you do when the dough wants to constrict back when you are rolling it out?** The first batch I made I let sit in the fridge for 3 days. The second was the one that wanted to constrict back. It was refrigerated for about 4 days or so. Does it make any difference if the dough is still cold or should it be room temp? Tom P.S. I've had that problem with my dough in the past.

Good question, Tom. This flour has really strong gluten, so it naturally tends to resist rolling out. Any of these make the dough hand shaping or rolling easier:

1. Letting it warm to 65 degrees or more.
2. Making a wetter dough (using not quite as much flour as last time – dough is softer and more stretchable).
3. Shortening the mixing time so the gluten doesn't develop as well.
4. Roll as far the dough will stretch easily, cover and let rest for 3-4 minutes – repeat as needed until stretched out. You want to avoid forcing the dough and breaking the gluten strands.
5. Letting the dough double in size – even 2 ½ times in size if the dough is very firm – over-rising will thin out the gluten, making it more workable.

Numbers 2 and 3 will change the texture of the dough – which you may or may not like. A cold dough that has an excess of flour and has not risen to double will be a real challenge to spread out. Bev

Thanks, Bev. The last one was by far the best pizza I've ever made (and I've made hundreds of them). The dough was room temperature and rolled out nicely. It was very simple – mozzarella cheese, homemade Canadian bacon, fresh parmesan cheese. I'll be trying some of the other ideas soon. FYI, I use a pizza sauce called Don Pepino (I have to order it online) [www.donpepion.com](http://www.donpepion.com). Best I've ever tasted. I could make some \$\$ with these pies! Tom

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Hello Bev, Thought I'd give you an update to my pizza making. I'm still experimenting, but I'm making headway. I neglected to tell you in my previous email that I too, like your grandson Patrick, like a thinner crust. I can make (2) 15-inch pies with your batch recipe for dough.

Now, as far as my tough crust problem, I've incorporated a couple of your suggestions and am making great progress. I've gotten the cooking time down to 10 minutes tops. I loved chemistry classes in high school and college. Cooking to me is like a chemistry experiment. So I now realize how important proofing is with the lean dough we are using. That very same batch that I wrote to you about produced another pie. It raised in the refrigerator 2 more days, plus I allowed it to proof at room temperature for 4 hours before making my pie. The result was 10 times better. I did incorporate another one of your suggestions and

doubled the sugar. This seems to crisp the crust and brown it faster. Makes sense to me also.

Here's the technical thing in me talking ... your oven is shorter than my full-sized oven, so you get more reflective heat off the top of the oven. By moving my rack to center, my cooking time was reduced because the top browned quicker and I was able to remove the screen sooner allowing the bottom crust to brown in less time.

One of my favorite movies is Moonstruck. There's a scene where Nicholas Cage and Cher are talking in the basement of Cammararie's Bakery. I've looked at the Spring Wheat Flour Bag about 100 times. Why didn't I get it? Funny.

I will continue my mad scientist ... I mean pizza making perfectionist trials ... and more than likely write to you again. John

Hello John: Thanks for the update. Your keen observation on the oven caught my attention as I had not thought about that before.

Noting how long it took for your dough to rise, I'm going to suggest increasing the amount of yeast so you don't have to allow so much proof time outside the refrigerator. Yeasts are variable in their activity. You could increase with your current yeast, and when you get a new batch of yeast find you have to decrease so the dough doesn't rise too fast.

About the sugar: I'm seeing there are other people who are having trouble on this browning point also, and I am thinking that more sugar is the best answer for them too. Especially when you are baking at 500 degrees, more sugar will crisp and color the crust



quicker as you observed, while retaining more water in the interior, helping eliminate a toughness problem.

About the olive oil: Olive oil is most helpful in lubricating the gluten so the dough stretches easily – find the point where the dough stretches easily and still gives you the chewy, crisp texture you like. The more olive oil you use, the less chewy the crust will be. It is a personal call where the line is between chewy and tough, and too soft and tender enough. Bev

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Hi Bev, **I have to bake dough on the screen in oven for 3 to 4 minutes before I bake the pizza to make it come out brown and right.** I have tried it in 3 different ovens. Am I doing something wrong with the dough? Russ

Hi Russ, I take it the browning is not happening on both top and bottom of crust. You shouldn't have to pre-bake the crust if you can get your oven to 500 degrees. I'd suggest the first thing is to make sure the dough is fully aged and fully proofed. If you use it sooner than 48 hours, you won't get good browning. If it is less than 100% proofed, you won't get good browning. Test: Making sure the dough is 100% proofed (finish proofing outside the refrigerator for whatever time is needed to get it proofed to double in volume before using), bake off a pizza at 2 days, 3 days, and 4 days of age. What differences did you find in browning? My guess is you'll see more browning as time goes on.

If the dough is rising very slowly in the refrigerator so that you have to proof it a long time outside the refrigerator, increase the amount of yeast. The activity of the yeast promotes browning up to a certain point.

A simple solution that will generally work is to add a little more sugar to the formula – try with 2 teaspoons and 3 teaspoons sugar.

Also, make sure the stone is fully heated. Give it a minimum of 10 minutes more after the oven comes to heat. Bev

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Hi Bev, **I'd like to experiment with freezing the dough.** Everybody is loving this pizza! Tom

Hi Tom: Great to hear! About freezing: Rich doughs, like for the deep dish pizza, do freeze well. Lean doughs don't freeze well – not enough sugar, fat, and other rich ingredients. The protein gets denatured, so the crust tends to be limp, flat, and soggy. But, after hearing this, if you still want to experiment with freezing, here's the best way:

1. Eliminate any sponge period during mixing. Just make a straight dough with no fermentation time.
2. Get the dough into the freezer as soon as possible.
3. And here is the hardest part: freeze the dough as slowly as possible. About the only way I can think of to do this is to put the dough into a Styrofoam or other type insulated container so the cold will get to it slowly.
4. On the reverse side, when you take it out of the freezer you want to thaw it quickly, like put it in your oven with the oven light turned on and a bowl of very warm water so it is about 100 degrees.

Some people are okay with the trade-off of loss of flavor for convenience. The less topping you put on these pizzas so the dough isn't weighted down, the better it will rise. Cheese pizza is better than adding other toppings. Bev

Hi Bev: Sounds like I might not want to venture into the frozen zone. **I think I'll stick with prebaking the dough.** Tom

Right on, Tom – I used to par bake 10-20 at a time, cool them on racks, then stack them in a heavy bag in the freezer – when I had 3 teenagers. They would come home from school, heat up the pizza stone, add sauce, cheese and toppings we always had on hand, and bake. I didn't know until years later that the smell of pizza attracted all the kids in the neighborhood so our house was Pizza Central. I just thought mine were mighty hungry teenagers.

I would par bake the dough until it was set and cooked through but not browned (like brown and serve rolls before you bake them off). Prick the dough well with a fork before you bake – this will help prevent large bubbles from forming, and check during the baking in case you need to pop some more bubbles with a long handled fork. I pre-baked about 350 degrees. Bev

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Hi: I have one question I did not see covered in your book. I make a pretty good pizza but **one problem I can't seem to solve is having what I call a heavy "gum line" of uncooked dough under the sauce/cheese.** The edge of my crust is perfect. I have played with cooking temperatures and times, but no real luck. I was trained at Papa John's. I have been told

by some people at PJ's that the slapping method can cause this problem. Cole

Hi Cole: I can see how this explanation might fit: if the crust is thinned out too much under the topped area from slapping, there will not be sufficient support for the toppings and it will collapse, leaving a gummy center. Test this idea by topping half pizza with only light sauce and cheese and the other half as you usually do. Was the area under the cheese only side better than the side weighted with other toppings?

Credit to Tom Lehman for this: How are you checking for gum line? Are you checking where you have cut – or where you made a bite? The cut area often displays that gum line "look." Instead, tear the slice apart. Do you still have the gum line?

Let's presume you still do. These are the next areas to consider:

1. Are you using spring wheat flour? This will give best results because of the protein strength.
2. Try either making a heavier dough ball that gives more support under the toppings, or shaping the dough to make sure the weight of the dough stays under the topping area rather than the outside 2-3 inches.
3. Leave plenty of dough in the center using the palm print method from the video and not working that center area at all – so after slapping, there is plenty of dough at the center to support the toppings.
4. Try making your dough firmer (more flour). Keep your toppings heavier toward the outside area and

lighter around the center – toppings will naturally flow toward the center as the pizza bakes.

5. Be absolutely sure the dough has doubled in size before using it.
6. Make your sauce thicker – more paste in it.
7. Give your stone sufficient time to heat to oven temperature.
8. This last one is something you have no control over: on occasion flour has too much enzyme in it. This can occur if the growing/harvesting season is wetter than usual or too much wheat has sprouted before milling, resulting in excess amylase, which will cause the carbohydrate to break down into simple sugars faster than usual. If this is the case, you might be more successful if you eliminated the sugar entirely and used the dough on days 2 and 3, rather than storing it longer. I doubt this will be a problem with U.S. flour but could be in other areas. Bev

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Subject: **Pizzeria Secrets are the worst and ruined my life!**

Thanks very much for the secrets!

My wife and her family always made a decent pizza. When we were married we used all purpose flour (or the quick method, a package of Martha White) for the crust and we found a cheap store brand (Star Cross in Virginia Beach, Virginia) and when we moved back to Michigan we found Contadina. Anyway, we were happy with our homemade pizza but it was NEVER like what we could order. Then when the local pizza shops, either

independent or chains, became busy the quality of their pies always seemed to suffer.

I reviewed the video, found our flour (at GFS-Gordon Food Service) mixed our dough, and using the techniques sat down and made my own Special Sauce.

We patted out our doughs and I even tossed them in the air ... still need lots of practice but had great fun. Still working on our technique for placing the pies on the stone/in the oven etc. but not bad for a first attempt.

Placed our toppings (as usual I put too many toppings on) following the recommendations, cooked at 500 degrees F. (never done that before) and a few moments later ... my goodness we had a nice pizza. We made one meatlovers, one supreme, one Hawaiian, and one Chicago deep dish in a pan. Our Pizzas came out of the oven looking like a DiGiorno's Pizza, and something that came from Uno's Pizzeria, and what Emeril made on TV ... they really were that good looking!

Sounds like a resounding success doesn't it?

Here is the problem: MY own "Secret Sauce" using your techniques, and the dough my Wife made using your recipe and the correct flour... well there is no way I can ever purchase a pizza again ... the ones we make are flat out better tasting, better looking ... What is wrong with that? Well, now I can't share with my children the experience of going to a pizzeria. LOL

There is some good news! I now get to share with my family an even better tradition, that of making our own "better" pizzas. Steve and family

Dear Steve and family, This was so funny I have to print it for everyone to enjoy. Pizza lovers are the best!  
Bev

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Hey Bev, **We made some great pizzas**. First we made a Supreme (special sauce, cheese blend of Swiss, white Vermont aged cheddar, Asiago, Parmesan, Monterey Jack, mozzarella, and thin sliced Muenster), pepperoni, onion, green pepper, green olives, black olives, bacon, hot sausage. I followed the recipe in your video for the sauce and added more pepper for our personal taste, also added 3 teaspoons of lemon juice and 1 teaspoon olive oil – this helps to bring forward the flavor, and added 1/4 teaspoon thyme, and a slight bit more fennel.

When cooked, the extra pepper gives a little longer lasting effect when chewing the pizza ... quite nice.

We then tried our hand at personal pizzas. It was a little awkward trying to pat the dough out in a consistent circle, and they were anything but round. Two were Hawaiian, with ham, mild ring (banana) peppers, and pineapple bits cut down to better fit the personals. I like just the mozzarella/Muenster combo for these and the sauce was the same.

Next were a couple personal Supremes except that I added 1 teaspoon sugar to 1 cup sauce to make for a Chicago style sweet deep-dish flavor (also works great for a dipping sauce). Finally, 3 are personal Super Supremes which have the Supreme toppings listed but additional pineapple, mild peppers and finely diced jalapenos to jazz it up. Very good as well ... 2 were with

the sauce and 1 with the sweet sauce. The sweeter sauce went better with the mild and hot peppers.

With the help of my wife I was able to fight the urge to add too much of each topping to our pies and they turned out even better than before. Steve

Hi Steve,

I like your Supreme combination and I like what you did with your sauce. We too like more pepper than in the basic recipe and I hear from other readers who say the same.

About personal pizzas: I often do a combination of hand shape and roller (I've got a roller about 4-5 inches long and on the other end is an even smaller roller) because they are so difficult to stretch. Sometimes it helps to roll or stretch them as much as they are willing, then cover and let rest a couple minutes, then come back and stretch some more. You can also make a looser dough for the small pizzas, which will make them easier to work. Bev

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Hi Bev, We found a source for the flour but had to buy a 50# bag. We've put it in Ziploc bags and stored it in the freezer. We live in Florida and as it's humid and hot in the summer. We had a concern about storing this much flour on the shelf. **I was able to buy the flour locally form a lady who makes bagels fresh**. Ed and Nan

Hi Ed and Nan, This is exactly the right thing to do to keep the crawlies from hatching out. You've pointed out another source for flour. Thanks. Bev

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Hi Bev, I have been making pizza since 1972 and this takes the cake! **One little problem: how do you spread the dough?** You make it look so easy. Del

Hi Del, I'm glad to hear most everything is working! About spreading the dough – a few things to try:

1. A softer dough will spread easier. Back off on the flour a small amount – 1/4 cup can make the difference; after you form the dough into a dough ball and observe it, make sure it is relaxing *just a little*. I think this is the most likely answer to making the dough stretch easily. Recently I made up a dough that was soft (too little flour in proportion to water) and it took about 3 slaps and was stretched out. The crust on this was crisp, fragile, tender – but too soft to support the amount of toppings I put on it so was rather compressed.
2. The dough will spread easier when it is warm than straight out of the refrigerator. It should take 1/2 to 1 hour out of refrigerator to warm up.
3. Be sure the dough is 100% proofed. If the dough seems heavy (a lot of flour), let it proof more than 100% to thin out the gluten.
4. More oil in the dough will make it spread easier by lubricating the gluten better. Try increasing the amount of oil – instead of 1 teaspoons, use 2 or 3 teaspoons. Watch that you maintain a chewy crust though – you can quickly get tender, not chewy when you increase oil.
5. When you are working the dough with your fingers as you are preparing to put it on the screen, use a spreading outward motion to gently stretch rather than simply pressing down with your fingers. Bev

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Hello Bev, **The pizza really sticks to the screen when we try to remove it to put the pizza on the stone to finish browning the bottom.** We sprayed it with non-stick food spray and baked it at 350 degrees, then resprayed. Could you tell me if there is any special way these screens are supposed to be taken care of – such as should the screen be washed every time it is used, then resprayed? Brian

Hello Brian, My experience is that no matter how hard you try, sticking to the screen is going to happen on occasion. You want to get to the “on occasion.” It sounds like you have been doing everything right. You are using a non-stick spray like PAM. Never wash the screens with soap – that will remove the finish and cause sticking. When the dough sticks, it seems to want to keep on sticking.

First, make sure you have all the current burned on dough removed as well as possible. Two ways to do this:

1. Put the screen back in the hot oven and bake it until the dough burns and you can break or crumble off the burned pieces, then use a brush to remove any residue. Don't wash. Just respray heavily with non-stick spray and then again just before you use it. Spray both sides always.
2. Or soak off the burned-on dough in a sink of water, making sure you brush all traces away. Dry thoroughly, then spray, store the screen away, and spray again just before using.

Four additional things to check:



1. When you are laying the dough, sauce, and toppings on the screen, make sure you are not accidentally pushing the dough down into the mesh. This is most likely to happen when saucing.
2. If the screen is functioning properly, the dough will release as it begins to brown. But until it reaches a certain point of release, it will stick to the screen. If this is the case, you are probably getting a large portion of your pizza stuck. Try giving it a little more time before you separate the screen from the crust.
3. One last possibility I can think of – sometimes if the pizza slides across the stone as you put it into the oven, the dough will catch and wrap under the screen and burn in place. But then you have just one end of it stuck down and you can usually work the rest of it free, and then free up most of the stuck part.
4. Be sure the center is not too thin – if it's too thin, it will be doughy and could mush up when the peel goes under it.

Bev

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Hi Bev, I appreciate your replies to my emails.

I know that sooner or later thanks to you, I will achieve "my" perfect pizza. I made mention in a previous email that I really think pizza is a personal thing and we all are striving to recreate that one pie that stays in our mind.

**I found these covered plastic bowls at Wal-Mart.** I place the cover on top of the bowl but don't seal it in the refrigerator. They also keep the dough nice and round during proofing. (Note from Bev: Just weeks before I had discovered this storage container at Wal-Mart and also liked it.)



Also, Whole Milk Mozzarella Cheese is so much better than the Part Skim. It's softer and creamier. I do love making a blend. Kraft makes a combo blend of 5 cheeses: Mozzarella, Romano, Parmesan, Asiago and Provolone. I take 4 oz. of that and mix it with a 16 oz. Whole Milk Mozzarella ball that I grate myself per batch.

Bueno Appetito! John

Hello John, Thank you for sharing once again. I learn so much from readers that I am able to pass on to help others. People want **their** answers. Like you said, pizza is an individual thing. I'm sure many people will benefit from the exchanges we have had. Bev



**Pizza by John**

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**I did not know it would cost about \$80 in cookware to make pizzas.** WE are retired and have to wait to budget additional monies to purchase the additional cookware. Jerry

Hello Jerry, Be sure to check out the alternate less costly ways of doing everything: About \$5 for unglazed quarry tiles at the home store in place of a \$40 baking stone; parchment paper at the grocery store to form the pizza on for about \$3 (don't bake higher than 450 degrees) - or skip that and form the dough on flour or cornmeal on a cookie sheet with flat side and slide it into the oven onto the tiles – not as handy as a pizza peel but it works; some people have formed the dough on an inexpensive splatter screen without handle from a Dollar Store (be sure there is no plastic, and cut off the handle). You can use your current pizza pan but place

it on the tiles – you can also slide the pizza off or out of the pan directly onto the tiles to get more browning once the dough is set. Buy bread flour at the grocery store and leave the oil out of the recipe – it won't be quite as chewy inside and crisp outside as it would be from a higher gluten flour, but will still make a very good pizza. You should be able to get started for about \$10. Bev

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Hi Bev, **My new cheese blend is 3/4 mozzarella and 1/4 Munster.** I tasted many cheeses in the last few months. Not a big fan of Provolone. Monterey Jack was good but not as good as Muenster. The sauce I have been using is Ragu traditional pizza Snack Sauce. Vic

Thanks for your tips, Vic. Readers may be interested to know that Wikipedia describes Munster (pronounced: MOON-ster) as coming from the Alsace region of France. The American version is called Muenster (pronounced: MUHN-stuhr or MOON-ster).

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Hi Bev, Larry here. **I have obtained good results with this flour making my San Francisco sourdough bread. I have also included some of my starter in the pizza dough and have had good results.** Also, **I was using too much garlic in the sauce and I was afraid to use that much hot stuff (pepper).** The sauce is quite hot when tasting it out of the pot, but as a sauce on the pizza, it is great!

Hi Larry, Glad you picked up on the hotness of the sauce straight out of the pot, but that when you put it

on the pizza, it's not too hot. (Note: on the other hand, some readers have written they had to tone it down!) I'm glad you are having good results using the flour in doughs made with your sourdough starter. The strength of the gluten really helps to counteract the denaturing effect of the acid produced in sourdough fermentation. I always feel the sourdough is a great shortcut to flavor when a small amount is added to a standard recipe.  
Bev

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Hello Bev, **Is there any truth to using whole milk mozzarella versus part skim for a better pizza?**  
Paul

Hello Paul, If I were using only mozzarella, I would prefer the whole milk mozz for more flavor (let's assume we're comparing 2 made by the same cheese maker – because flavor can vary so much just based on the maker). So flavor is one thing. However, most whole milk mozz tends to bake out more grease during baking, which for me is a negative. Young whole milk mozzarella holds up better in high oven heat, but it can be hard to find a source for young cheese. I almost never put plain mozz on a pizza – instead mixing it with a more flavorful cheese, so I go for the better performance of the part skim. Very good question – and as you can see, not necessarily a single answer. Bev

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Hi Bev, I made my first pizza with the flour you suggested, the Pendleton Power. My pizza was amazing! **I actually found a second-hand baking stone. When I heated it in the oven, it was smoking and dark-looking.** Are the stones supposed

to look like that? And there appeared to be “stuff” oozing out of the center. Should I be seasoning this somehow or soaking it?

I remembered what you said about the sauce that was made with just tomatoes and basil. **I used Ragu Chunky sun-dried and sweet basil spaghetti sauce** as a starter and just barely adjusted it – it was fabulous – just the tomato and basil was a perfect suggestion. I think it would be great if you also threw on some fresh basil leaves, like if you were making a chicken pizza.  
Marsha.

Hi Marsha, On your recommendation I tried that Ragu sauce and agree! About your stone - it's okay for it to be dark. I wonder if it got saturated with grease either accidentally or the person who had it thought you had to season it with grease. And now it is baking off. Choices: Scrub with a baking soda/water paste or better: bake it until whatever is causing the smoking gets burned up - or - if you or someone you know has a self cleaning oven, run it through the clean cycle – open the windows and turn on the fan to blow out the odor.

In my gas oven, I can set the stone on the bottom of the oven for cleaning. When I had an electric oven, I sacrificed a rack to put it on - kind of ruins the nice finish on the rack - but it sure cleans the rack well! Maybe I'd better ask you one other question - is it the brownish-tan colored type of stone? If it's a gray one made of Fibrament, I'd suggest something different: the gray one tends to absorb odors, so it is recommended you don't put it through the oven clean cycle – or if you do, that you run the oven through a clean cycle first to remove the odors, then use the clean cycle again to

clean the stone. You can put a sheet of foil over it to protect it when baking too. Bev

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Hi Bev, My first pizza came out quite well. Before I made my first attempt I wanted to make sure that I had all the right tools and supplies for it. **Finding the flour and the pizza stone in Canada was a challenge.** In my search for a good stone I came across a tile store to get my red tiles. I was a bit shy to tell them what I wanted to use it for, but finally I had to come out with the truth! Them knowing what I wanted, they persuaded me to go with a 1/2-inch thick granite stone, which they had many people come and buy for baking purposes. I got a 16" x 16" stone for \$10.00 so I figure I couldn't lose much on trying it. After that I went into a different store and saw a real baking stone and also bought it, since that is what I really wanted. I ended up liking the granite so much I haven't even tried the other one. It's still brand new sitting in the cupboard.

Finding the flour was the next thing. I ended up contacting a major flour company here in Canada, Robin Hood Flours, and they told me that the best bet was to go with their "best for bread" flour.

Now, back to my pizza experience. I made the dough and it worked perfectly. I had watched the DVD a few times, especially the section on making the dough. The dough rose too fast even in the refrigerator. After 2 days in the fridge, I had to bake it. I left the pizza too long in the oven because the cheese didn't melt. So finally we ate a burned pizza with cheese that had become like cottage cheese on the pizza. In our attempt to make it a better tasting pizza we had

put too much Parmesan cheese on it. So after all we did, it wasn't a great outcome.

I was determined to make good tasting pizza, so right that evening I made new dough for the crust, put it in the fridge ready to try again. By now I am saying that my pizza is better than the one in our home town pizza restaurant. My wife is getting worried that we will have pizza too often. (She isn't the best pizza lover.)

My wife and I were so pleased with the sauce that we came up with. We used the smallest amount of every thing you put out in the recipe. The amazing thing was, that after a few days in the fridge, the sauce was a lot better and richer. I am sold on that recipe. When visitors and friends want to know, I say, "It's my secret recipe."

I have lots to learn and am getting interested in getting some tips to start my own pizza shop. Koby

Hello Koby, It does feel a little strange to buy cooking equipment at a floor store. So thanks for writing about your experiences. I am sending some tips to get started in your own business.

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Hi Bev, I finally made my first pizzas today. After ordering all the equipment and finding the right flour and making the dough and proofing it, it took about 2 weeks but it was worth it. **I tried a different sauce than the one you suggested. I made one like a traditional marinara.** I started sautéing some finely chopped onions in olive oil, then added 4 cloves of fresh crushed garlic. Then added 2 cans san marzano whole peeled tomatoes, 1 can crushed tomatoes, then paste,

then spices. Simmered it for like 6 hours.  
Fuggetaboutit! **This sauce is the "BOMB!"**

I followed your recipe for dough. It said it would make one 16" or two 12". The largest stone that would fit in my oven leaving the proper 1-inch clearance on each side was 17-3/4" x 13-1/2". So the largest screen I could get was a 12". I evenly split the dough ball from your recipe into two equal halves. I feel it could have made two 14-inch pies instead. It was more like a "regular" crust than a thin crust. It came out exceptional though. The bottom was so golden brown. I couldn't believe that I actually made this! The first pizza was just sliced mozzarella, sauce, and fresh chopped basil. The second was black olive, mushroom and half pepperoni/half peppered salami. Both were AWESOME!!

**I have a few questions about my next project ... deep dish pizza. Do you suggest "par-baking" the crust** to ensure that the inner crust is not under-cooked and doughy? Also what is your view on using the same flour or even the same dough as the thin crust recipe? If not, what are the reason(s)? Bill

Hi Bill, I'm glad to hear the pizza lived up to your expectations. You sound like a New Yorker! (Fuggetaboutit!) A few weeks ago several of us made a trek to NYC and visited a couple of the famous pizza places. They put the slices of fresh mozz on before anything else. It was a pretty good pizza but I thought my home replica was better. I have added tips on that to the eBook now.

You are absolutely right about the crust thickness - you are in the group that would make two 14-inch or even two 16-inch out of my dough ball. Maybe three 12-inch for you?

About deep dish - If it's not too thick, like 1/2 inch, it doesn't need par-baking. Several people have told me they use the thin crust recipe for the deep dish also. I like my deep dish pizza base more like soft bread and not chewy - that's why I make a richer dough (more sugar, oil) and use all-purpose flour. I suggest if a reader does not like the soft dough to use the thin crust recipe but increase the sugar and oil, and maybe use bread flour instead. This makes a substantial but not too chewy crust. Bev

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This letter was copied to me by my correspondent in England – Ron W. – who has helped UK people source equipment and flour:

Dear Maria: **Regarding your question about a baking stone, I have used natural sandstone** without any problems. Usually a piece from a garden centre has been stored outside so would need heating up slowly to the operating temperature to drive out any water as it is quite porous. As Bev says, commercial stones are hardly thick enough to retain the heat for multiple baking which it sounds as though you will be doing as your family grows up (also, don't forget all their school pals will find your pad a popular place to hang out!) My piece of sandstone is one inch thick and works well.

The problem with all of this is to find a suitable stone that is smooth enough. I don't know what the availability of suitable stone is like in your area, but garden centres are a very good source. You need natural stone, not reconstituted stone. Ron

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Dear Beverly, Is that really you? It is so nice of you to take the time to e-mail me. Today everything is so impersonal with big business, we kind of miss that local store that really cares, you know?

Well my first pizza came out really good to my surprise. I made the sauce on the high side of your ingredients and it was a little too spicy for us – you didn't taste the other toppings. I did learn (I've made 3 batches so far) to separate the dough not into equal balls, but 3/4 and 1/4, to make 1 -12-in. and a little personal pan pizza.

**I found separating the risen dough just before use was hard to get them into a round shape because when you cut the dough in half you ended up with 2 half rounds.** The second time I used fresh mozzarella and caused the cheese to burn. I took it out, and it wasn't crispy enough. You must have an oversized oven to fit the 16" pie in there. I couldn't. I can only make 2- 12".

Oh! The other thing I wanted to tell you is **I ordered the Sir Lancelot flour from King Arthur, but on the bag it says HARD WHEAT, not soft or spring wheat.** They said they have only one flour named Sir Lancelot. So I don't know if that makes a difference.  
Joann

Dear Joann, Yes, I answer all letters personally - I like to know that everyone is succeeding. Every so often I find someone who has not succeeded, and often it is something simple. But I'm glad to hear you are doing well!

Isn't sauce an individual thing! I talk to people who double everything and people who cut everything in half. You came up with a good way to size your pizzas!

And yes, you are so right about getting the dough round to begin with; it is easier to shape and slap out round if you start with round dough balls first! You *can* make an irregular dough round, but it takes a lot of practice. Always call the misshapen ones "rustic" pizza!

Put the fresh mozzarella under the sauce to keep it from burning. Fresh cheese will always burn if exposed.

The Sir Lancelot is a hard wheat – it's a hard, spring wheat. Only pastry/cake type flours are grown from soft wheat and some may be blended with all-purpose flours. I will explain that better, so thanks for commenting. Bev

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Bev, Update since my first message: I reduced the amount of yeast from 1/2 tsp to 1/4 tsp and now the dough takes two days to double. I left one in the refrigerator when I was on a trip to San Diego for 2 1/2 days and when I got home it was out of control. **I guess you could say the one thing that is not quite to my liking is that the dough is missing the taste that I'm looking for.** It has the texture but I like a more yeasty taste and I am trying to achieve that. My first taste of pizza was in a little mom and pops shop in little Italy NY in 1960.

On a good note, I have been taking a few slices of my pies into work and was told I am not allowed to bring any more in unless I bring enough for everybody. It's funny seeing people come by my office to check out how my last pizza turned out and that I might have an extra piece so they can give me an opinion. I have one disbeliever that asked me what pizza shop I got it from

because he says "you can't make pizza like this at home."

I have tried Bay State Milling Bouncer from a nearby GFS store with some success. I tried some King Arthur, but the Bouncer is far better. The mill that makes the Bouncer makes a flour called Winona **Patent. Is that a better flour to use?** Mike

Mike, I wonder if you reduced the yeast further so it would proof for 4 days, if that would be more to your liking. The extra time will bring up the flavor. Also, experiment with letting the dough overproof some - like 2 1/2 times instead of double. Let me know your results in case I can think of something else if this doesn't work.

White flours are often labeled Patent - but much patent flour is made to produce fluffy white bread, not chewy pizza crust - patent means the flour is coming from the streams closest to the center of the wheat kernel - the white flour. For pizza you want some of the rougher stuff like you get in Bouncer, which has a higher ash content than most patent flours. Bouncer would be the mill's higher ash flour in this case. Bev

Bev, **I let a reduced yeast batch go while I was in San Diego for 5 full days. The flavor was fantastic.** This one change made a tremendous difference. Thanks for the advice. I have got what I wanted now. Mike

Mike, It's amazing how those enzymes can turn the dough into something so tasty given enough time. Thanks for writing and keeping up the experiments. It is exciting when a reader finally gets the success they were wanting. Bev

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Hi Bev, I am still making lots of pizzas. I've gone through almost 200 lbs of flour since I started my pizza quest. I have a couple of questions. I was re-reading your manual (for the 1000 time) and ran across **"whey powder" for crispness**. I thought I would try it but can't find it. I checked at King Arthur but they do not have it. Do you know where I might find it? Lee

Hi Lee, Bob's Red Mill has whey powder in the U.S. - two kinds - sweet and regular. I've seen it at grocery stores around the country, so check grocery first, then whole foods stores. Another option is a bakery supply house. It is also sold on line, but try to find it locally so you don't pay postage. Bev

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Hi Bev, **Here's an update to your question about the sourdough starter I am using in pizza dough.** I do use King Arthur sourdough all the time. The one I tried starting myself just never was right. I've kept this one going and have shared it with friends. I put 2 tablespoons in a batch of dough that I get 5 nine ounce dough balls out of (45 ounces).

My experiments went well. I made four batches and used more sugar in varying amounts in each batch. *(Note: sourdoughs usually need extra sugar to brown.)* When I was looking for whey powder, I saw **vital wheat gluten** and read the back of the box. It said it would improve the crumb and I decided to put some in the last batch. I was sure I was wasting my time but ... **that dough was the best yet.** I used 1 tablespoon in the batch and it was great. Really crisp and a great flavor. I could tell by looking in my oven while it cooked that things were different. I like it when I get a big

bubble or two in the pizza dough and I did with this batch more than the others. When I cut the pizza, it sounded different and the wheel passed through easily, no toughness, just ahhhhhh!

My big party in June went just fine. We cooked all the pizzas outside on a grill. The guest list was 54 people. We cooked (25) 10 inch pizzas at a time on three very large grills. And then did another 15. It really came together smoothly. Lee

Lee, Thanks for the KA sourdough information and your success with vital wheat gluten. I get occasional questions on these and will pass on your success and compliments on KA' sourdough starter. I note it's a very small amount of sourdough starter you are using - sounds like you are getting flavor but not the texture you often associate with sourdoughs. I wish you continued good fortunes in your new pizza catering business. Bev

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Hi Bev, **My wife makes roasted tomatoes:** buy 3-4 pounds of plum tomatoes, riper the better (this time of year they are great); slice them in half and pull out the seeds. Put tomatoes skin side up on a cookie tray, coat generously with olive oil and minced garlic. Bake at 200° F. for 6 hours. Pull off the skins and cool. We have normally served these with grilled Italian bread. Guests love it.

Try coating the dough with olive oil and minced garlic, spread cheese mixture (I like Mozzarella/Provolone 75%/25%), not too much cheese. Crush some of the plum tomatoes in your hand to top off the pizza. Bake to crisp crust. Everyone loves it. Dan

Hi Dan, I did try it with some fresh Romas from the garden and it was indeed delicious! I also made one with olive oil and garlic as you suggested, then fresh Roma tomatoes covering the dough instead of sauce, topped it with cheese and it was delicious too. Bev

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Bev, I know I haven't sent a message in a long while. I just wanted you to know that we have pizza every Sunday night. I usually **make the dough in the bread machine** on Friday. I set a timer for 20 minutes and then take it out just before the machine heats up. (While the bread machine is kneading the dough, I make my pizza sauce). When the dough is ready, I put a little olive oil in a quart size plastic zip lock, and refrigerate the dough until Sunday afternoon. At that time, I roll it out onto two 16-inch screens, cover with saran, refrigerate it again, and then go to see my grandson. At night my husband assembles the pizza and bakes it on the screens, on a pizza stone (Villa Ware # 518) in our outdoor grill. The results are superb, and we are still amazed at the professional look, and thin crust. I love having the pizza ready for me when I get home!

Thank you again. Making perfect pizza is such an accomplishment. Tomasina. P.S. I forgot to tell you that we baked our pies on our gas grill outside and use Jack Daniels oak barrel wood chips to create a brick oven effect.

Tomasina, thanks for sharing. Bev

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Bev ...We have a couple of restaurant supply stores nearby. I got ALL of the equipment. My wife is ready to throw me out the window! I'll just blame you! Mike-Jersey City

Mike – You can blame me! I am too far away for slings and arrows in the hinterlands. I'm sure she'll forgive you when the pizza comes out of the oven. A little sleuthing pays off in saved shipping charges. Bev

Bev ... Last Wednesday I had a slice for lunch at one of our better pizza places in downtown Jersey City. The pizza I made at home was far superior ... and my wife agrees with me. I will never order a pizza to be delivered to my house again, unless it is an absolute necessity. **Last night I made a pizza with (you ready for this?)** chicken and roasted garlic for a topping. I put a "shmear" of sauce and not too much cheese (just enough) and put the chicken and garlic on top of that. It was wonderful! Years ago we traveled to France and were served a pizza like this for an appetizer. Try it ... you'll like it. Mike

Mike – Your words are music to my ears! A compliment from Jersey is indeed a compliment! I tried your combination and it was delicious – with your help I finally figured out what to do with my roasted garlic.

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## **Tales from Inside the Pizzeria**

### **The start of an amazing career saga**

How did I go from teaching in a cooking school to Director of Quality Assurance & Research and Development for Domino's Pizza?

I was wandering through the cooking shop where I occasionally taught classes and noticed a new item – a pizza stone. "Do you want to sell a bunch of these?" I asked Sandy, the store owner. Soon I was teaching preschoolers to make pizza dough in a cup and on up to 70 year olds.

Sandy knew I got nervous when chefs and reporters attended my classes, so she waited until later to tell me. When the shy, handsome fellow in my class was spending more time watching me work than making his pizza, I would give him some one on one help. He would busily go to work, then quit as soon as I left. I determined he would get his hands into the dough and learn to knead before he left, and I worked my hands over his to make sure he learned how. After class, Sandy introduced me to Thomas S. Monaghan, often called the local Pizza King, and owner of Domino's Pizza.

Monaghan told me he had spent months traveling around the country, especially pizza country, to learn to make the best pizza anyplace. In my travels, I had done much the same thing. It is small wonder, then, that when our pizzas met up that day in class, he was taken aback and exclaimed, "I didn't know there was anybody else who knew so much about pizza." Then he added, "I know more about pizza than anyone."

Tom invited me to visit Domino's corporate office – which then oversaw 250 stores – and soon I was working for him. Thanks to him, I came to know more about pizza than anyone else in the world!

His excitement and energy infused every soul who worked there. On many a Saturday night, he would gather us up (and spouses too) for a tour of area stores, where he would instruct us and the store personnel on making better pizza. Later he would take us to a nice restaurant for dinner and follow up on "assignments."

One assignment I had been given was to arrange for free testing of cheese with the university. (We did not yet have a lab.) I told him they didn't do free testing anymore. A few minutes later he turned to me and spoke, "Bev, I'm very disappointed in you." He waited a few seconds while that sank in, then added, "You took NO for an answer." Whoa! Did I learn! He did not get there by taking no for the answer. My husband, a professor at University of Michigan, enjoyed quoting Tom: "After all, what are universities for if not to help business?"

## **Business School Analysis**

In my 4<sup>th</sup> month with Domino's, Monaghan brought a business school class in to conduct a free company evaluation, as he had done 4 years prior. The students interviewed the top execs and a sampling of us middle managers. I was one to keep my eyes open, so it was easy to see both company strengths and shortfalls.

After telling what was wonderful, I shot straight from the hip about our problems for half an hour. The analysts exchanged furtive glances, then told me I was

almost last to be interviewed and no one had said any of this. Seeing their disbelief, I added, "Don't take my word for it. Why don't you ask around?"

Three weeks later they were back in my office telling me they had checked out every thing I had told them and found it all true. Now they were in a dilemma. They had looked up the previous professor and students who had done the earlier analysis, and found they had uncovered the exact same things. But that group decided that bad news would be poorly received by Monaghan, so they told only the good parts. Letting the problems go had made them worse.

So what was this group to do? They're asking the newbie? I had discerned Monaghan didn't like bad news, either – but I also had seen he was quick to make changes if he thought it would make the company stronger. I suggested they focus on the good, stick in the bad real quick, and finish with a glowing summary.

It was a textbook finish in the company newsletter, The Pepperoni Press. Everyone was pleased with the glowing report – and Tom went to work on the not so positive. It was One Minute Manager ahead of its time.

## **Golden Rule**

Tom Monaghan was more than a business leader. As a staunch Catholic, he was also our moral leader. Wandering through my Quality Assurance department, he spied what appeared to be a Playboy type magazine with scantily clad cover model lying on one of the guy's desks.

He got an upset look as he snatched it up and turned to the Centerfold – to find a foldout of scientific data. I was watching from a distance, busting up of course, as



a look of sheepishness and relief crossed his face and he quietly closed the magazine and moved on.

### **A horrible thing happened**

If you follow football, you know the University of Michigan and Ohio State are arch football rivals. So what was Monaghan thinking when he gave our top store in Columbus, Ohio, to the University of Michigan football coach?

I came to work that Monday and told everyone, "You watch. That store's sales will plummet overnight." Sales dropped from \$20,000 to \$5,000. Customers would call an order, then say, "Wait! Is this the store that belongs to the Michigan coach? ... Cancel that order!" Slam.

Yes, Monaghan lost \$15,000 (the store eventually recovered), but he gained millions of dollars in free advertising. It was in every newspaper in the country. You couldn't get on a plane without your seat mate saying, "Is that the pizza company that gave the store to that coach in enemy territory?"

It put our 700 stores on the map. In the months to follow, every supplier who came in our door told us, "The first words out of your competition's mouths are, 'What is Domino's doing?'"

The company took off like a space mission with stores and commissaries popping up across the country. Ambitious college boys working their way through became franchisees, as did hard working high school grads.

It was good to have problems of a *growing* company, but we struggled to find suppliers to make uniform products, to meet our quality levels, and in the quantity we needed. A new kid on our block drew graphs to

show how proactive we had to get to keep up with our phenomenal growth rate – sometimes doubling number of stores in a year. We understood, for only a year previous, we had miscalculated and run short of sauce before the new crop of tomatoes was in the can.

### **Mentors**

There were many good mentors in the company. The best mentor I ever had was our commissary division manager, Don Vlcek. Don was a taskmaster, a bottom liner, and a delegator. Too often people in QA and R&D don't get the importance of the bottom line; he drilled it in.

Don is now a business consultant. He has instituted Job Planning & Review strategies with other companies. This was an amazing tool we used in the company to communicate goals, accomplishments, and expectations between manager and employee.

Tom Monaghan was, of course, a mentor to all of us. We never got as much of him as we wanted. When I joined the company, Tom told me, "Bev, I'm going to teach you everything I know about pizza." The next week I wandered around, got acquainted, poked my nose in to ask questions, and waited for Tom to show up and teach me everything he knew. Into the second week I was getting lonely and worried. At the end of the third week, Monaghan showed up to ask how it was going and what I had accomplished - which, incidentally, was a lot in that last week and a half!

When the next new kid showed up and told me that Monaghan was going to teach him everything he knew about Equipment and Supply, I jumped off my chair and shouted, "Get your butt to work! He'll be back in 3

weeks and you'd better be accountable!" And he was. More than two of us tell a similar story.

We had so much room to grow and learn – or hang ourselves ... and both were done regularly.

### **Architect turned Pizza Guy**

How did the first Domino's Pizza store come about? Monaghan told me he was studying to be an architect (his admiration for Frank Lloyd Wright was to show up in his collections later), and to make tuition he bought a pizza store for \$8000. Suddenly he was working 99 hours a week with no time for school, and pizza showed more financial promise than architecture.

The store name was Dominic's. After a year, Tom was doing well, and the previous owner, who had another Dominic's store, asked him to change the name. He repainted the sign to Domino's. The rest is history.

Tom was truly an entrepreneur – he could come up with a hundred new ideas a week. The staff joked that 97 were trash and 3 were gems. We considered it our responsibility to sort out the 3 and make them work.

### **Everyone had *The secret sauce***

Sauce was being made in back of the store commissaries. There were at least 15 different sauces, all claiming to be Monaghan's original sauce. Sauces varied 400% on some ingredients. This had to be fixed. I asked Tom for his formula and he said it was a fist of this and a fist of that.

I took buckets of spices to his office to determine how much his fistful was. He played with the spices. "Did I use one or two of these?" he'd ask himself. Then

he revealed he changed the spice mix on the fly, each time making it better. Oh, no, all these sauces were originals!

Our confused spice company was making up bunches of different formulas and were relieved when I told them the secret sauce was going to be secretly fixed. It would have taken years to come to a group consensus on what constituted the REAL original sauce, so I made a decision, and the spice company and I quietly altered the formulas every order until all were the same.

There were some complaints, but overall we gained customers by having a sauce that appealed to a greater range of tastes.

If I was ever called on the carpet for it, I intended to beg for forgiveness. There were MANY times on other projects I had to beg for forgiveness. While my boss Don got pretty upset at me a few times, he one day realized I was getting things done, and for some time our division made great strides using the motto: It is better to beg for forgiveness than to ask for permission.

### **But I nearly had a heart attack**

The second year I was with Domino's, Don decided we would dispense with the problems of making sauce out back and have it canned in California from fresh tomatoes. I'd just finished getting the spice mess cleaned up and knew nothing about putting it into fresh tomatoes. I needed some pilot work. But Don said NO. Give it my best shot. We would be doing the whole knoodle.

I was terrified. On the plane headed west that August, I kept up a non-stop commentary: "What if it's too thin? What if it's too thick? What if it's like aspic and

they can't dump it out of the can? What if it's too peppery?"

Finally Don turned, looked me straight in the eye and coldly replied, "We'll open our own pizza company and call it Hunky, Chunky Pizza."

Don and I never became our own pizza company. The sauce was 90% okay. We cleaned it up right the following year. We had another motto come out of this kind of "fly by the seat of your pants" operations: Ready, fire, aim. It sounded stupid, but it worked. It cut development time by 90%. I came to believe we have more gut level intelligence than we give ourselves credit for.

### **We had the most expensive flour on the planet**

The buyers were always frustrated about why I had to insist on the most expensive everything. Why couldn't we buy the less expensive winter grown wheat?

Were we missing something? I arranged for my new dough expert Dana and I to take a winter wheat seminar in Kansas. We were instructed why we should use winter wheat, that it worked just as well, and there was no difference if you used the right technique.

Dana and I tasted the product and exchanged knowing looks. We saw the Japanese pair in the front row, who had furiously been taking pictures and notes, taste with disappointment. Traitors that we were, we told them to go to Domino's for dinner.

A year later, when I joined the International Team, I had the privilege of helping our first Japanese franchisees get started. I also got a lesson in Japanese

think. Something that we thought would take a 5 minute explanation would end up as a 2 hour discussion, and we couldn't move on until everyone understood and agreed. It was often maddening and frustrating. In the end, the Japanese franchisees understood what, why, and how, and they were a showcase operation, doing it by the book.

### **The Glass Ceiling**

It was a no-no to compare salaries in our commissary division. So when the women on the operations side were gossiping about a woman finally breaking the glass ceiling, I kept my mouth shut as I had broken it years before. Thanks to working in an almost exclusively male bastion of the company, no doubt, and a progressive boss. Thanks Don.

### **50% rule**

I could fill a large book with Domino's Pizza stories – about the workplace, the people, the challenges, successes and failures, buying the Detroit Tigers, sponsoring an Indy race car, fighting the legal battle with Domino's Sugar over brand name, working on the international team.

My guess is that 50% of the people who worked at Domino's during my era – the frantic, fun, exciting years of mind-bending growth and change – would have fascinating stories to tell. How do I know? I asked Eileen (the receptionist who got appendicitis on her honeymoon) how many people worked there.

"About half of them," she replied.